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April 4th, 2022

Environmental Permitting Manager
Sabina Gold & Silver Corp.
1800 – 555 Burrard Street
Box 220
Vancouver, BC,
Canada, V7X 1M9

Attention **Merle Keefe, Environmental Permitting Manager for Sabina Gold and Silver**

Subject **Goose Project Site – 2021 Annual Geotechnical Inspection**

Project 1CS020.021

Dear Merle,

SRK Consulting (Canada) Inc. has been contracted by Sabina Gold & Silver Corp. to conduct a geotechnical site inspection for the Back River Project (Project). The Project is a proposed gold mine located in the territory of Nunavut, roughly 525 km northeast of Yellowknife, 160 km south of Bathurst inlet.

Background

This annual geotechnical inspection (AGI) is an annual requirement in response to Part 1, Item 10 of Sabina's Water Licence 2AM-BRP1831 – Amendment No. 1, issued by the Nunavut Water Board (NWB) on October 15, 2021. The objective of the geotechnical inspection is to ensure that the project's surface infrastructure is performing as intended from a geotechnical perspective and in the context of the project site use. The emphasis to a large extent, based on the project's location in a cold climate continuous permafrost area, is ensuring permafrost integrity is upheld.

The 2021 AGI for the Goose site is the subject of this memorandum.

2021 Annual Geotechnical Inspection

Two visits were carried out to comprise the 2021 annual geotechnical inspection (AGI). The first site visit was carried out by John Kurylo, MSc, PEng., between April 10th and April 19th. The weather conditions were typically cold and overcast with periods of light blowing snow. As there was still some snow cover on the ground during the first inspection, and as it was hard to view the toes and surface

water flow paths, a secondary site visit was performed in the summer of 2021 (during the snow free months).

The second site visit was carried out by Darryl Godley, a Geotechnical Consultant with SRK, between the 22nd and 23rd of July 2021. Darryl's site visit was in close contact with and under the supervision of John Kurylo. Weather conditions during the inspection were cool with heavy winds and rain. A photo log showing an overview of the July 2021 inspection is provided in Attachment 3.

The inspections were focused on the water management infrastructure and, at the time, the foundation preparations for the new camp tank farm. Note that the portal and decline area were outside the scope of this inspection and were not looked at or included as part of this AGI. The inspection of the airstrip, culverts, bridges, access roads, tank farm foundations and the future Camp Contact Water Pond footprint were carried out using a skidoo (March) and by pickup truck (July). Frequent stops were made for physical (on foot) inspections. No drone photography or helicopter access was available at the time of these inspection (in part due to the weather on site at the time and due to equipment availability). Either drone photography or a helicopter reconnaissance of the site would be suggested to help improve the future 2022 geotechnical inspection. Aerial inspections, or aerial photography, would assist to get an overall aerial overview of the interactions between surface water flow and the various (in progress) water infrastructure, beyond what can be observed by close visual inspection and from topography data review. The aerial photographs will also assist with looking at any permafrost degradation over the long term.

In addition to the specific observations and recommendations, as overviewed in Attachment 1, SRK would like to reiterate a few overarching design and operating principles as it relates to geotechnical stability, design and performance, while specifically focusing on the permafrost integrity at the project site:

- Design and construction of all pads and roads at Back River are intended to minimize permafrost damage and are designed based on specific thermal criteria. Underbuilding of roads and pads will result in permafrost damage because of thermal erosion, which will require ongoing maintenance and significant remediation costs at closure. SRK currently note involved in scopes of work beyond the water management infrastructure at the Goose site, and therefore are unable to further comment on the current pad and road designs and are only able to comment on what has been communicate and what is visible on site. Sabina is reminded to consult the appropriate site-specific reference materials when designing and constructing new pads and roads. Specific areas of interest are noted in the 2021 AGI, and often key observations are near areas where surface water was noted to be flowing into or below infrastructure, or along the toes and outside crest of the roads, airstrip and pads. See Attachment 1.
- Care needs to be taken when constructing permanently heated buildings on the rockfill pads. Prolonged heat generated from these buildings will result in the active layer below the pad deepening, which in turn could lead to degradation of the underlying permafrost, and manifestation of undue settlement. No specific new observations related to new heated structures (outside of the historic exploration camp area) were noted as part of the 2021 AGI. However, building to ground heat transfer, should be closely considered as the areas around the permanent camp pad and

plant site area, that are expected to be advanced in 2022. Where possible it should be considered if structures can be elevated to allow air flow below the buildings, or if this is not possible if additional insulation material, or in extreme case thermosyphons may be required (specifically in the foundation areas built on overburden permafrost that has been identified as having sections of massive ice). The impact of heat transfer to the foundation will be directly linked to the design tolerance of the buildings and structures and can be considered accordingly (for example foundation below tanks would have very low tolerance, whereas general roads and pads below items like trailer buildings or sea can would have higher tolerances / be able to accommodate more movement in the foundation).

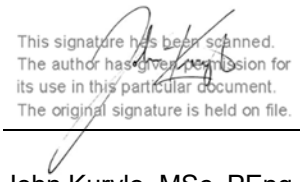
- Sabina is reminded that the maximum active layer thickness occurs around August at the end of the summer season. All road and pad shoulders are at their most vulnerable during this period as the thermal protection at these shoulders are less than the minimum required (by standard geometry), resulting in localized deepening of the active layer. As a result, tension cracks and general softening are most prevalent at the shoulders (outer sides). Sabina should take special precautions to limit vehicle traffic within 1 m from all shoulders. As outlined in Attachment 1, tension cracking along the western side of the airstrip and portions of the roads, specifically by where the future camp pad pond is expected, were noted in 2021 inspections. These are not atypical but should be monitored. Specifically, the airstrip shoulders should continue to be closely monitored from June to November to ensure that any additional maintenance is able to be conducted as required.
  - Due to the critical and higher risk nature of the Goose airstrip, drone photographs and photos taken from ground level should be taken again in the summer of 2022 and compared to the information collected in 2021. This would be done to make a better assessment of ongoing permafrost degradation rates and potential maintenance requirements.
  - SRK is aware that Issued for Permit (IFP) drawings were issued in August 2020 for the Rascal Diversion. As the airstrip expansion is now underway / in progress it is suggested that the Rascal Diversion be constructed sooner than later. From discussions with Sabina, it sounds like the Rascal diversion may be constructed in 2022. The Rascal Diversion Berm, located WSW and adjacent to the airstrip, will help to redirect more surface water flow away from the airstrip (toward Gosling Pond and down the natural flow paths). The Rascal Diversion will likely will not alleviate all ponding against the airstrip but is expected to have an overall positive impact and reduce the overall magnitude and volume of ponding and assist to reduce overall long-term maintenance at the airstrip.

Notwithstanding the observations and recommendations provided in this AGI (see Attachment 1), the Back River site is performing in reasonable accordance with predicted geotechnical expectations. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Figure 1 shows recent earthwork progress at the Goose site, in comparison to the final design footprints, and highlights some of the current in progress areas that Saina is working on as Goose moves from exploration towards a development and operational stage.

Specifically, many of the areas of the roads, and area along the southwestern side of the Goose Airstrip expansion had fill thicknesses less than the final design thickness. If these areas are left in an underbuilt stage for multiple years, then the active layer in these areas would be expected to deepen, and either require more long-term maintenance (until conditions stabilize), or additional fill thicknesses (to accommodate a deepening active layer).

From a performance and geotechnical point, a closer review of what has been installed at the Echo Creek crossing, and the temporary measures at the Goose Neck crossing is suggested. Some tension cracking was seen near the shoulders of the road adjacent to, and that will ultimately become part of, the future Camp Pad Pond. Sabina should consider near term widening and/or additional fill placement (increased thickness) at that camp pad pond road section. From a safety point of view, close monitoring of the Goose Airstrip remains a top priority. Additional comments and observations are provided in the attached Figure and Attachments 1 to 3.

Regards,
SRK Consulting (Canada) Inc.



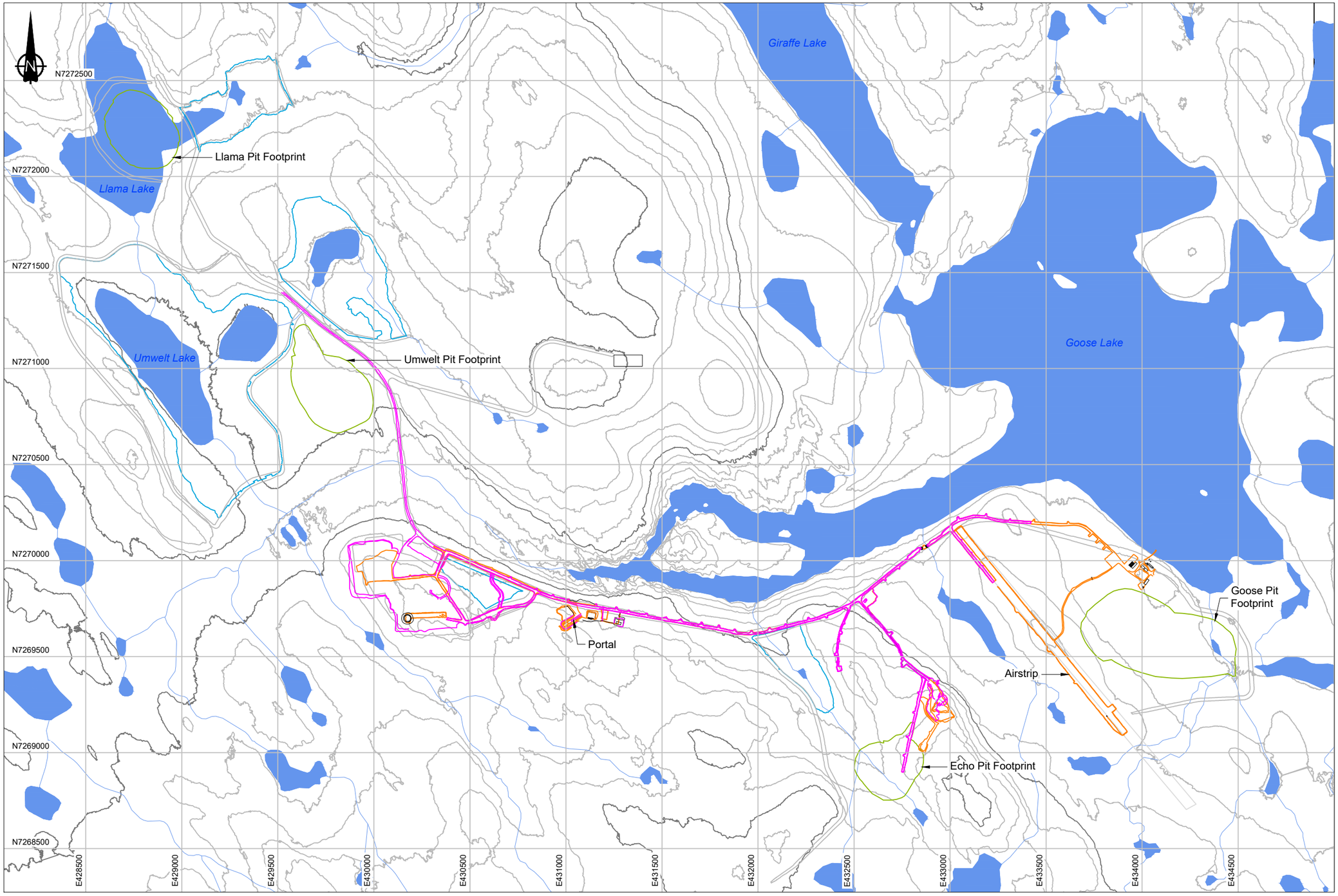
John Kurylo, MSc, PEng
Principal Consultant (Geotechnical)

Attachments:

Figure

Attachment 1	Summary of Observation and Recommendations – Goose
Attachment 2	Summary of Available Ground Temperature Data
Attachment 3	Photolog from July 2021 Site Visit

Figure



LEGEND

- Design Infrastructure
- 2020 As-Constructed Infrastructure
- 2021 As-Constructed Infrastructure

NOTES

1. Contours are shown at 5.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.
As-Constructed drawing files provided by client:
- SBR7LED-21-C-PLN-0001-AS BUILT NOV.21.dwg
- SBR7LED-21-C-PLN-0003-PORTAL PAD.dwg

0m 200 400 600 800

NOTE: As of the 2021 AGI no pits, waste rock storage or ponds had been constructed on site

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SRK JOB NO.: 1CS020.021
FILE NAME: Goose Site.dwg

Sabina GOLD & SILVER CORP.

Back River Project

2021 Annual Inspection

DRAWING TITLE: General Arrangement
Comparison of 2021 Infrastructure to Final Development Plans

DATE: March 2022 | APPROVED: JBK | FIGURE: 1

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Attachment 1 Summary of Observation and Recommendations – Goose

Inspection Item	2021 Observations and Recommendations
General Comment / Overview	• The main observation as part of the 2021 Annual Geotechnical Inspection (AGI) was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Site is currently in a transition from exploration towards an operating site (development stage). So many of the comments in the Annual Geotechnical Inspection are linked to items that should continue to be monitored or considerations for some of the key water management areas that should be considered as the site infrastructure construction advances.
Goose Airstrip	• Prior to landing any aircraft on the runway, the aircraft operators should conduct their own assessment of the runway conditions (in terms of functionality) and make recommendations for maintenance. Ultimately it will be at the discretion of the aircraft operators if the airstrip surface is acceptable for their aircraft. • SRK's review of the airstrip focused on identifying distress of the airstrip embankment and changes in the natural terrain, based on the available imagery data and visual inspections. Distress of the airstrip embankment, mainly near the immediate edges / shoulders, was identified as small linear tension cracks or depressions, inferred to be caused by permafrost degradation in the underlying foundation. In areas this is enhanced by ponding water against the side of the airstrip (some from natural flow paths). • Water was observed to be ponding on the southwestern boundary of the airstrip. Water appears to be flowing northeast from the adjacent natural water bodies (located approximately 150m west / southwest of the airstrip before being intercepted by the airstrip fill). Ponding at the time of the summer inspection was approximately 100mm to 300mm deep with constant flow. The current conditions could result in additional permafrost degradation at the Goose Airstrip if additional water management measures are not implemented in the coming year. • Based on discussion with site staff the western and southwestern edge of the airstrip has been underbuilt in areas (as low as approximately 0.5m); as a temporary access as site staff works on the upgrades and expansion of the airstrip. The main running surface of the airstrip (where the planes would land) is therefore offset from the ponding water observed during the site inspections. • Permafrost degradation at the Goose airstrip is suggested to continue to be visually monitored each year during the annual geotechnical inspection. Ground level photographs, measurements, and aerial drone imagery should again be collected in 2022 to assist with ongoing monitoring. The area of most interest at this time is the most southern end of the airstrip where the most ponded water was observed adjacent to the toes. Refer to the Attachment 3 photolog for photos pertaining to the airstrip inspection.

Inspection Item	2021 Observations and Recommendations
Culverts and Surface Water Flow Management	• A total of six culverts and two temporary bridges were inspected. No ponding of water was observed at these water management structure at the time of the summer 2021 inspection however, some were noted to have consistent flow through them. • The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components were completed (to be done by others such as the design engineers). These bridges are a temporary measure that are planned to be removed in the short term (next year or two) however, they should be closely monitored and the load over these bridges restricted to what was outlined as per the design engineers' recommendations. During freshet observations should be collected on site to look if any of the flow paths come into contact with the bridge abutment fills. If any ponding water is observed against the bridge abutments, this should be removed to maintain the integrity of the underlying permafrost, until the more permanent and final crossings are installed. • Some attempt was made to dissipate the flow at the outlet of the culverts by placement of larger, approximately 0.3m to 0.5m, boulders at the outlets in areas. This may not be sufficient to prevent erosion of the tundra, an appropriate design should be considered. The outlet areas of the culverts should continue to be visually monitored and revisited as part of the 2022 AGI. • Cover over the culvert pipes is as low as 0.5m in some area. This may be insufficient cover for larger vehicles (that are planned on the site in the future) and may not provide enough thermal cover. Many of these culverts are more short-term operational culverts and may need to be removed or updated as the size of the haul road increases / advances towards the final arrangement. • As part of the summer 2021 inspection the access road towards the Goose Neck had not been constructed. See Attachment 3 for additional details and photos from the 2021 site visit. SRK understands that temporary measures at the Goose Neck crossing were installed, but that these measures are planned to be removed before freshet. The proper / final designs for the Goose Neck crossing are planned to be installed in 2022. A closer review of the Goose Neck Crossing area would be expected to be included in the 2022 AGI • It is suggested that site visit each culvert outflow during freshet to ensure appropriate energy dissipation is installed. Observations and photos should be collected of these culvert outlet locations to help track any developments in these areas. Specifically of interest in area where will have future Echo Pond as this could have thermal impacts on that pond design.

Inspection Item	2021 Observations and Recommendations
Road Thickness	• A general inspection of the roads was conducted during the site inspection. Road fill thickness and width vary throughout site. • Design and construction of all pads and roads at Back River are intended to minimize permafrost damage and are designed based on specific thermal criteria. Underbuilding of roads and pads will result in permafrost damage because of thermal erosion, which will require ongoing maintenance and significant remediation costs at closure. • Overall design width of the roads has not been built out to the full design limits. Until the full road design width and heights are constructed on site the size of the design vehicles will be limited. Currently on site most traffic is one way and the minimum interim design width of the roads with therefore be required to be at least two time the width of the vehicles that are using the access roads. This is more a point of consideration as site progresses towards a more final road width. • Sabina is reminded that the maximum active layer thickness occurs around August at the end of the summer season. All road and pad shoulders are at their most vulnerable during this period as the thermal protection at these shoulders are less than the minimum required (by standard geometry), resulting in localized deepening of the active layer. As a result, tension cracks and general softening are most prevalent at the shoulders (outer sides). Sabina should take special precautions to limit vehicle traffic within 1 m from all shoulders. As outlined in Attachment 3, tension cracking along the western side of the airstrip and portions of the roads, specifically by where the future camp pad pond is expected, were noted in 2021 inspections. These are not atypical but should be monitored. • Some tension cracking was seen near the shoulders of the road adjacent to, and that will ultimately become part of, the future Camp Pad Pond. See Attachment 3, Figure (Photo Page) 25. Sabina should consider near term widening and/or additional fill placement (increased thickness) at that camp pad pond road section.
Goose Camp and Plant Area	• No significant development at the camp pad area at the time of the summer 2021 site visit / inspection. • When SRK was on site Sabina was actively working on the plant pad area. There were no tanks constructed on site and no bunded areas built at the time of the 2021 Annual Geotechnical Inspection. • The camp and plant pad area should be revisited in more detail as part of the 2022 Annual Geotechnical Inspection as additional site development activities have resulted since the 2021 inspection and are planned to be further advanced on site in 2022.

Inspection Item	2021 Observations and Recommendations
Quarry	• The quarry was briefly inspected from the entrance. No work was actively being conducted on site at this quarry location at the time of the AGI, and the entrance was blocked with boulders to prevent vehicle access. • No signage however was observed prohibiting entrance to the quarry. Sabina should consider placing additional signage at all access points / entrance points to the quarry.
Camp Pad Pond	• The Camp Pad contact water pond (CWP) would be constructed to capture run-off from the camp pad and stockpile. Containment would be achieved with a lined containment area. The footprint of the CWP was inspected to facilitate discussion regarding the pond designs at this location (currently in progress by Sacre-Davey). Highly fractured rock was observed throughout the footprint in some outcrops extending through the location of the intended dam embankments; these fractures may result in excessive seepage if not accounted for in the design. Fractured rock should be considered when designing the camp pond over the inspected footprint area.
Ground Temperature Cables	• As part of the 2021 AGI, all the available ground temperature data was reviewed. A summary of this data is presented as Attachment 2 for completeness. Generally, the permafrost on site is seen to be 'cold' and supports the approach that permafrost should be focused on being maintained below any section of infrastructure constructed over overburden (less critical for elements built over bedrock). • The last reading for most of the ground temperature cables was noted to have been done in 2015 or earlier. It is suggested that in 2022 Sabina complete a full review of the onsite ground temperature data to check what instrumentation is still functioning. If instrumentation is found to still be functioning, then it is suggested that a current set of measurements be collected from the active locations. • Sabina SRK understands Sabina is in the process of developing a Goose site wide thermal and permafrost monitoring plan. Considerations should then be given by Sabina to incorporate any active ground temperature or thermistor string locations into that overall, in progress, site wide plan.

Attachment 2 Summary of Available Ground Temperature Data

Back River Project
Ground Temperature Data Review

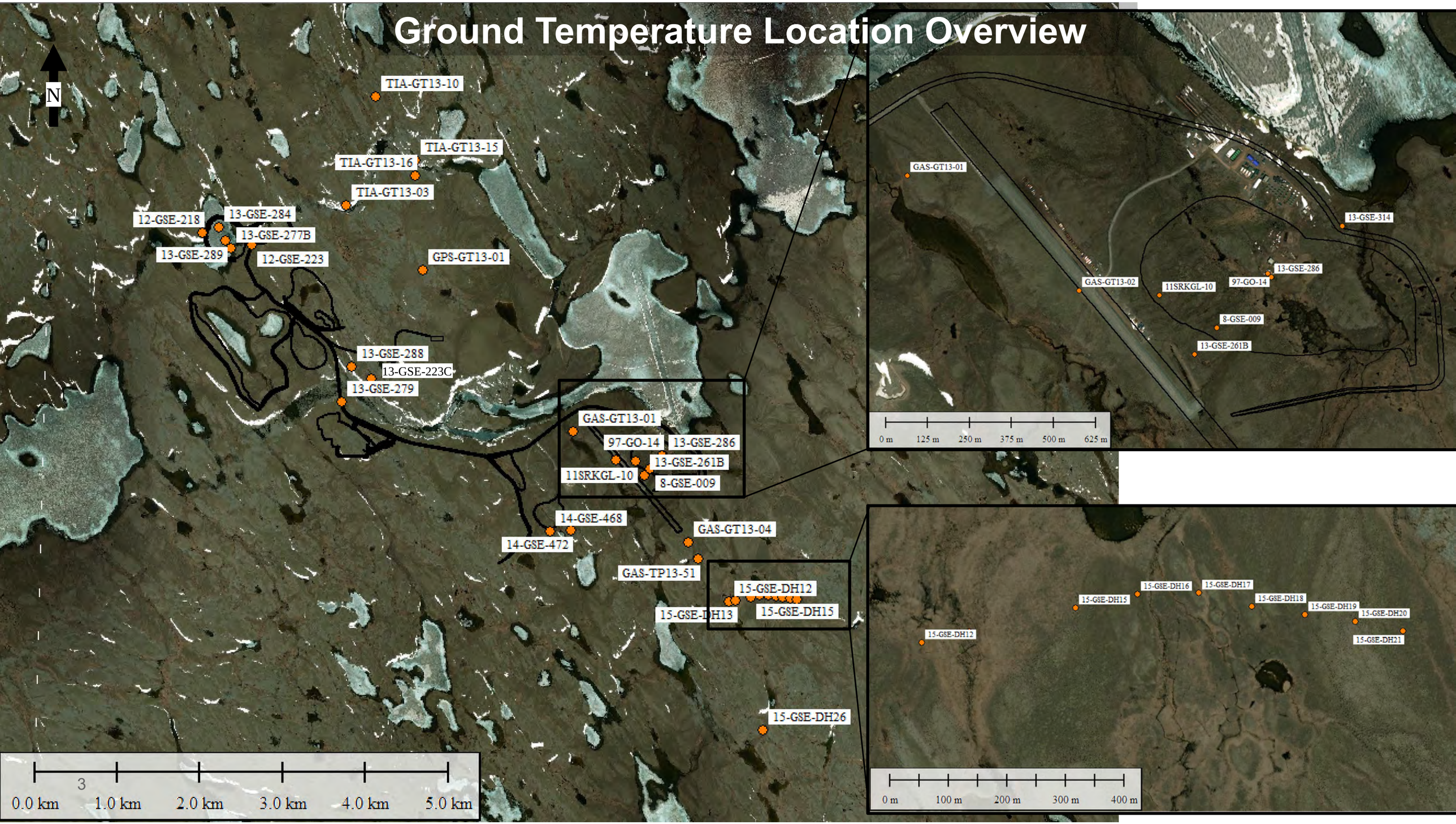
March 2022

srk consulting

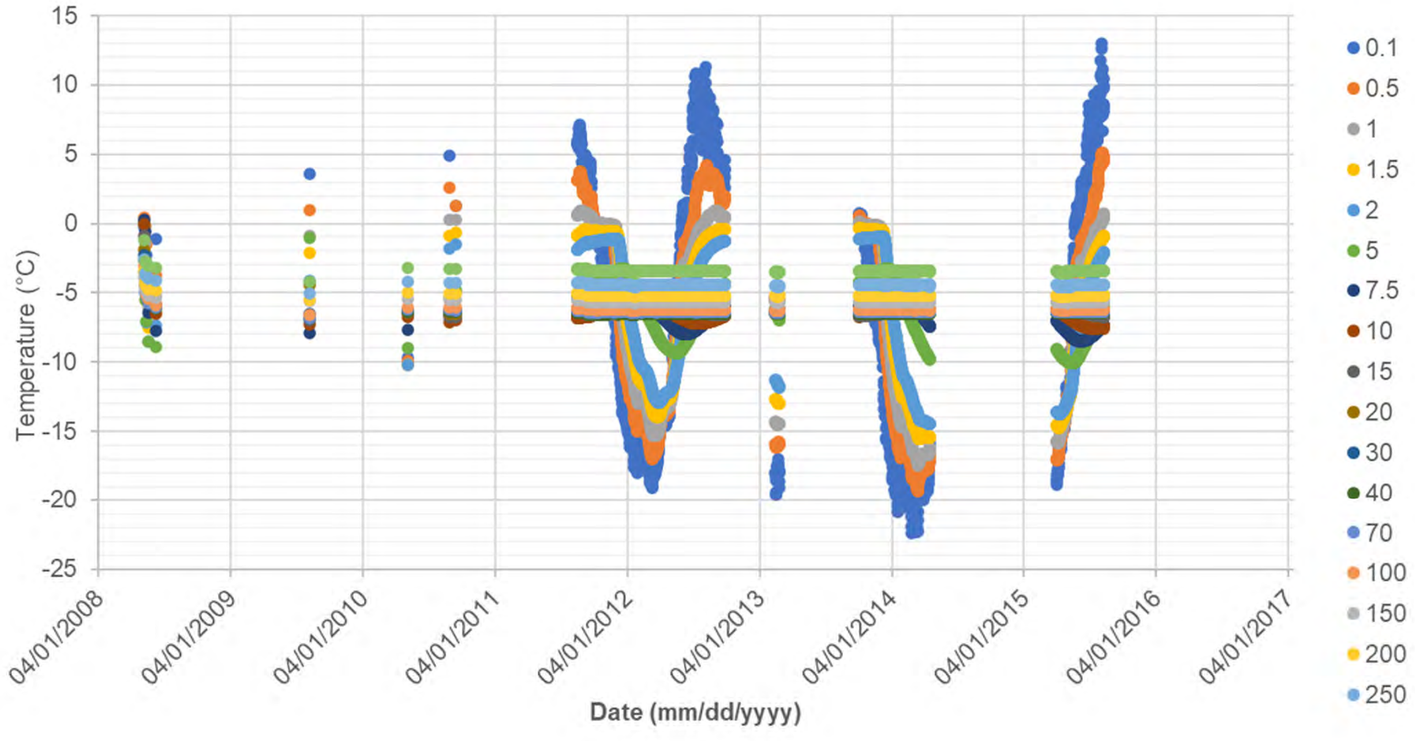
Ground Temperature Site Summary

Property	Location	Drillhole ID	Year of Installation	Northing	Easting	GTC Length [m]	Logger Type	Logger ID	From	To	SRK Note
Goose OP/UG	Goose Main	13-GSE-261B	2013	7,269,381	433,838	560	Permanent	DL13	4/28/2013	4/1/2015	Record with lowermost nodes provide valid data
		13-GSE-286	2013	7,269,612	434,066	210	Permanent	DL04	4/9/2013	4/15/2014	Record continuous over period
		13-GSE-314	2013	7,269,764	434,278	210	Permanent	DL02	5/8/2013	11/19/2013	Record continuous over period
		11SRKGL-10	2011	7,269,557	433,734	21.5	Permanent	38910	4/4/2015	4/6/2015	Record of single ground temp. profile
		08-GSE-009	2008	7,269,461	433,904	300	Permanent	41212	5/9/2008	8/13/2015	Record not continuous with data gaps
		97-GO-14	1997	7,269,623	434,056	7	-	-	-	-	No Data
	Umwelt	13-GSE-288	2013	7,270,686	430,310	560	Permanent	DL03	5/9/2013	10/26/2014	Record shows nodes not functioning properly
		13-GSE-279	2013	7,270,260	430,189	560	Permanent	DL12	4/18/2013	4/3/2015	Record below 110 mbgs nodes functioning, nodes above largely damaged
		12-GSE-233C	2012	7,270,546	430,544	565	Permanent	Q23936_Logger3			
	Llama	13-GSE-277B	2013	7,272,125	428,852	265	Permanent	DL04 - removed	4/3/2013	11/19/2013	Record nearly continuous over period, GTC damaged during 2013 breakup
		13-GSE-284	2013	7,272,370	428,710	390	Permanent	DL05 - removed	4/12/2013	5/22/2013	GTC damaged during 2013 breakup
		13-GSE-289	2013	7,272,218	428,790	660	Permanent	DL06 - removed	5/4/2013	6/14/2013	Data not reliable GTC damaged during 2013 breakup
		12-GSE-218	2012	7,272,301	428,508	390	Permanent	Q23420_Logger2	10/12/2012	11/23/2014	Record with valid measurements from 7/19/2014 to 11/23/2014
		12-GSE-223	2012	7,272,161	429,104	285	Permanent	Q23420_Logger1	7/30/2012	4/19/2014	Record valid up to 4/19/2014
		12-GSE-223C							8/29/2012	8/5/2015	Record not continuous with data gaps
	Echo	14-GSE-468	2014	7,268,705	432,707	375	Permanent	DL8001453	7/20/2014	4/2/2015	Record continuous over period
		14-GSE-472	2014	7,268,724	432,957	375	Permanent	DL06	7/20/2014	4/2/2015	Record nearly continuous over period
Goose Infrastructure	OLD TIA	TIA-GT13-03	2013	7,272,636	430,246	17	Permanent	DL8001317	5/26/2013	12/4/2013	Record nearly continuous over period
		TIA-GT13-10	2013	7,273,951	430,604	17	Permanent	DL8001318	5/27/2013	5/6/2014	Record with some data gaps
		TIA-GT13-15	2013	7,273,180	431,079	17	Permanent	DL8001320	5/27/2013	5/6/2014	Record continuous over period
		TIA-GT13-16	2013	7,272,989	431,079	17	Permanent	DL8001319	5/27/2013	4/30/2014	Record nearly continuous over period
	Goose Airstrip	GAS-GT13-01	2013	7,269,913	432,983	17	Permanent	TBD	5/27/2013	5/6/2014	Record continuous over period
		GAS-GT13-02	2013	7,269,571	433,495	27	Permanent	DL8001315	5/25/2013	4/2/2015	Record nearly continuous over period
		GAS-GT13-04	2013	7,268,574	434,367	27	-	-	5/25/2013	6/19/2014	Record has limited number of manual measurements over period
		GAS-TP13-51	2013	7,268,379	434,496	3	-	-	8/27/2013	6/19/2014	Record has limited number of manual measurements over period
	Plant Site	GPS-GT13-01	2013	7,271,857	431,171	17	-	-	10/3/2013	6/19/2014	Record has one valid temp profile
	TSF	15-GSE-DH12	2015	7,267,857	434,863	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH13	2015	7,267,876	434,944	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH15	2015	7,267,916	435,125	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH16	2015	7,267,940	435,231	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH17	2015	7,267,942	435,336	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH18	2015	7,267,919	435,427	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH19	2015	7,267,905	435,517	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH20	2015	7,267,893	435,603	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH21	2015	7,267,877	435,685	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH26	2015	7,266,311	435,268	15	-	-	4/17/2015	8/16/2015	Record has two manual measurements

Ground Temperature Location Overview



08-GSE-009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04/01/2014
04/01/2015
04/01/2016
04/01/2017
Date (mm/dd/yyyy)
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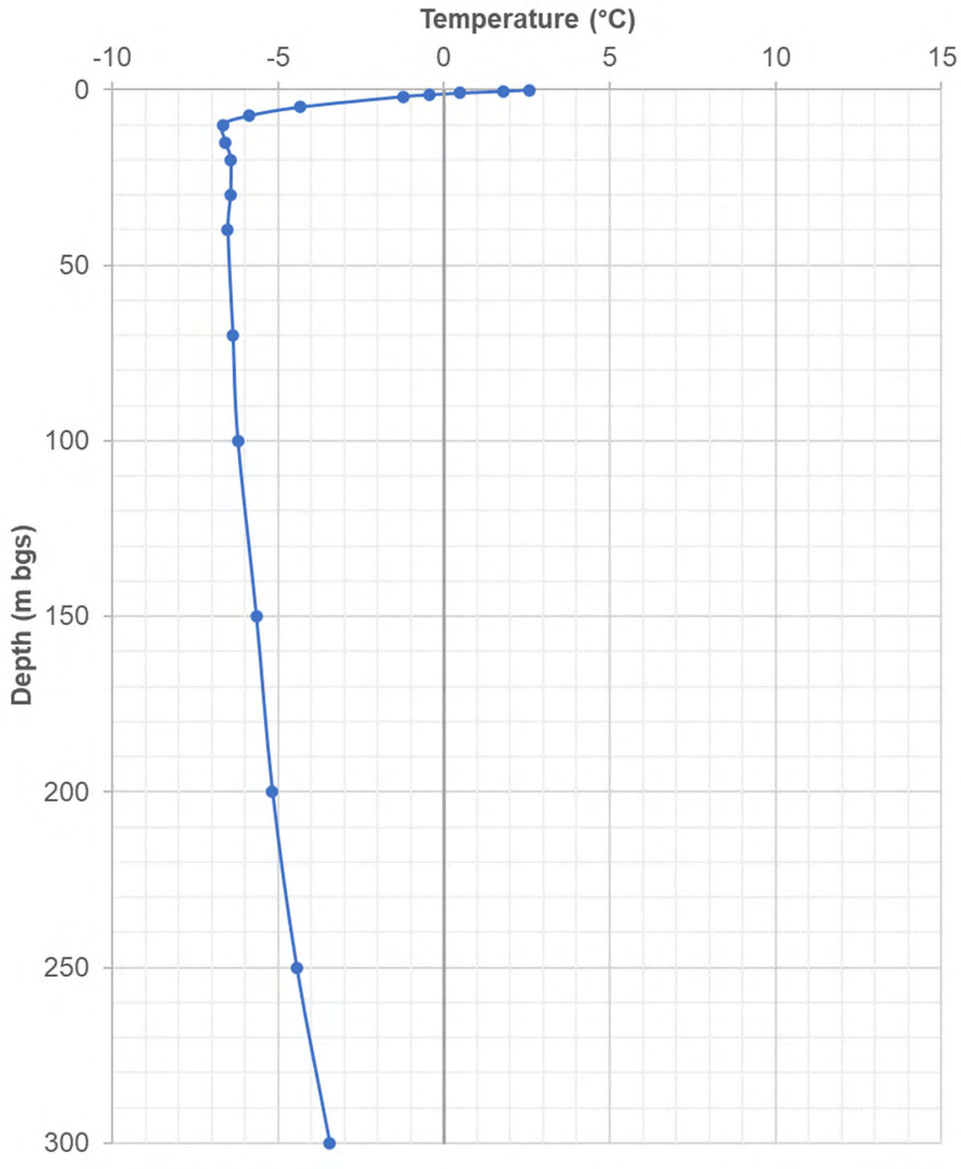
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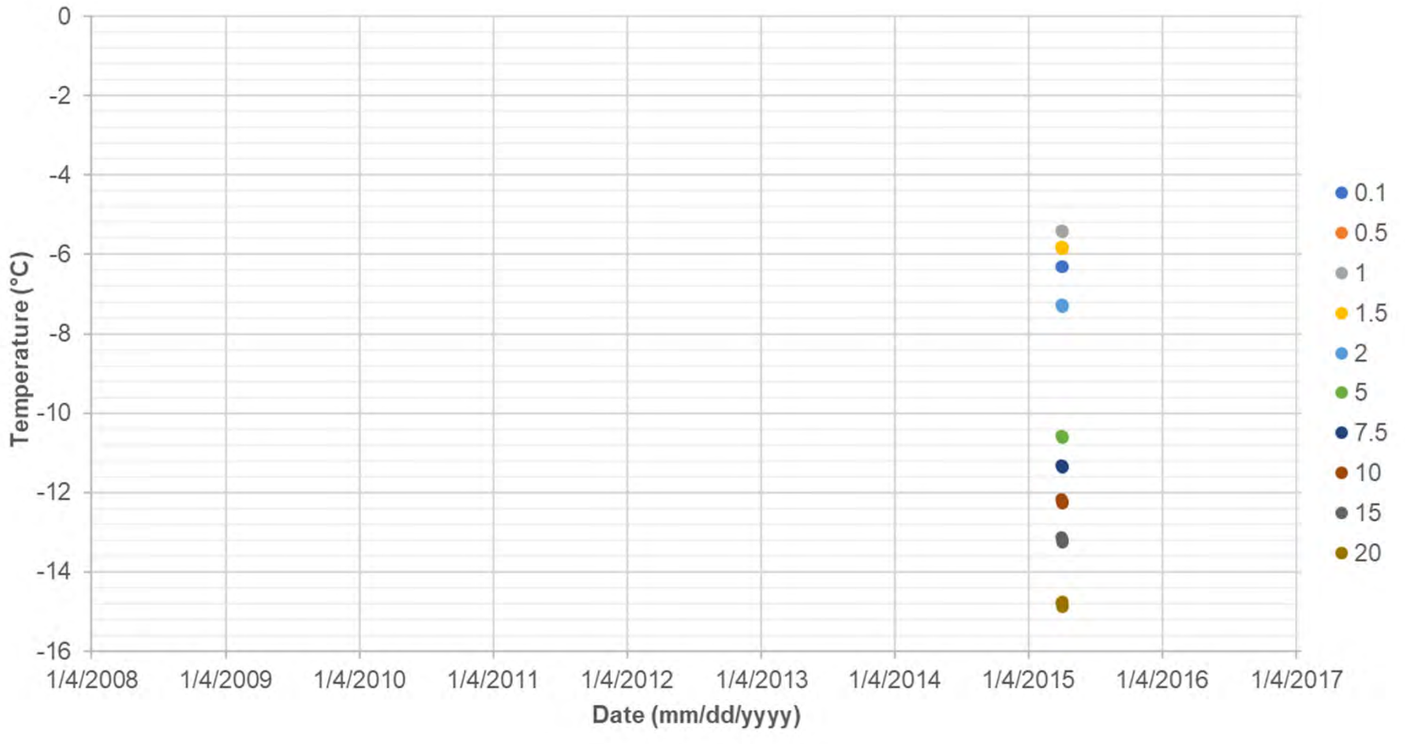
Depth (m bgs)

11SRKGL-10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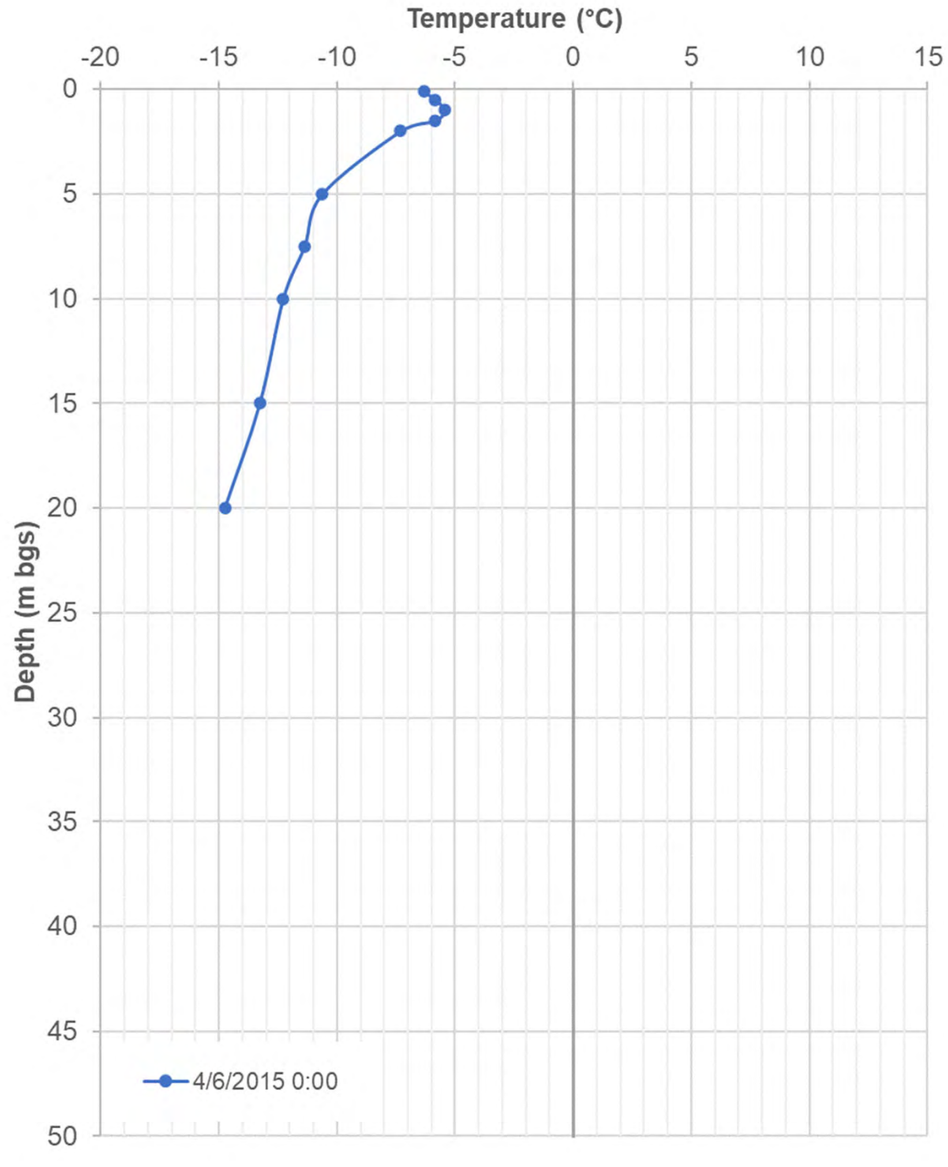
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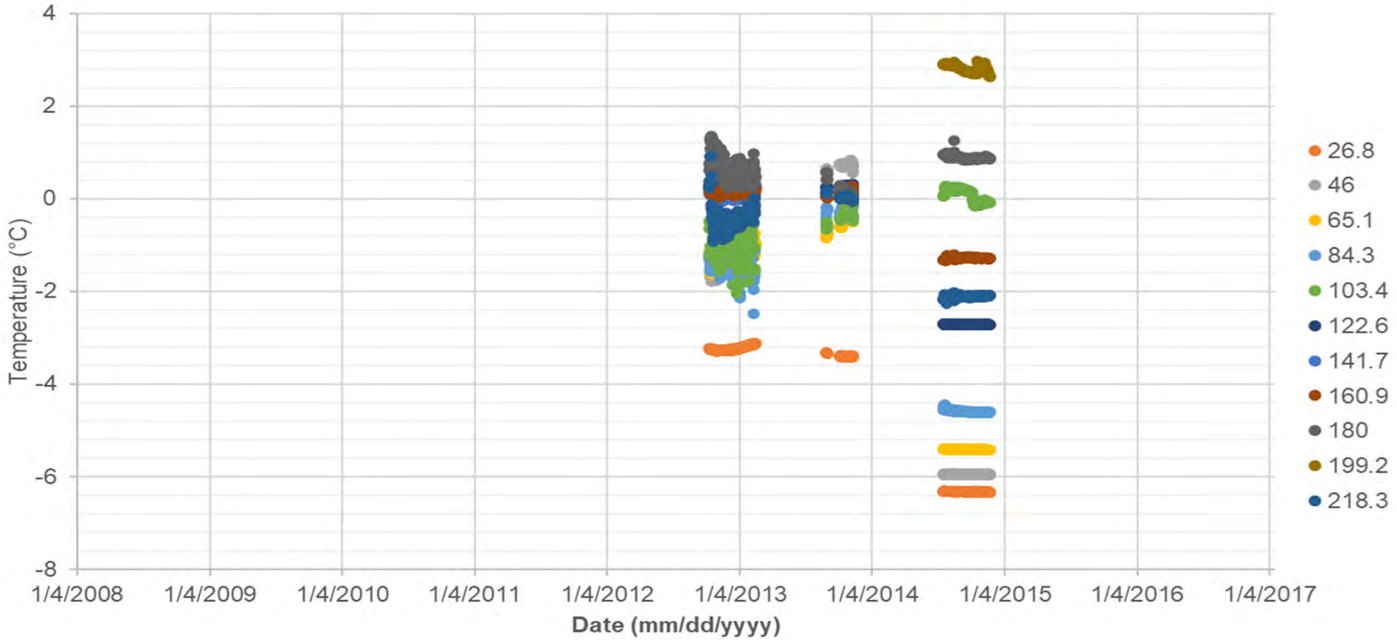
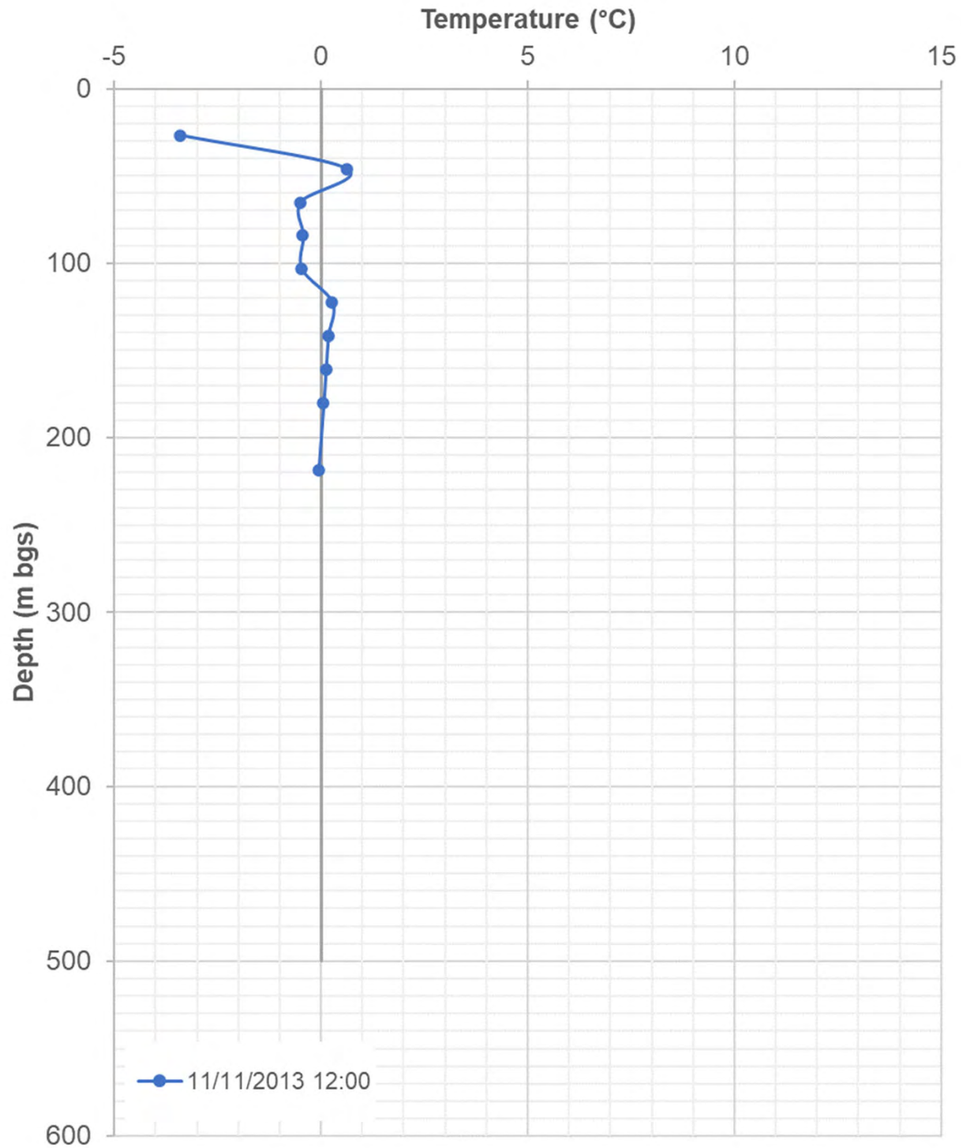
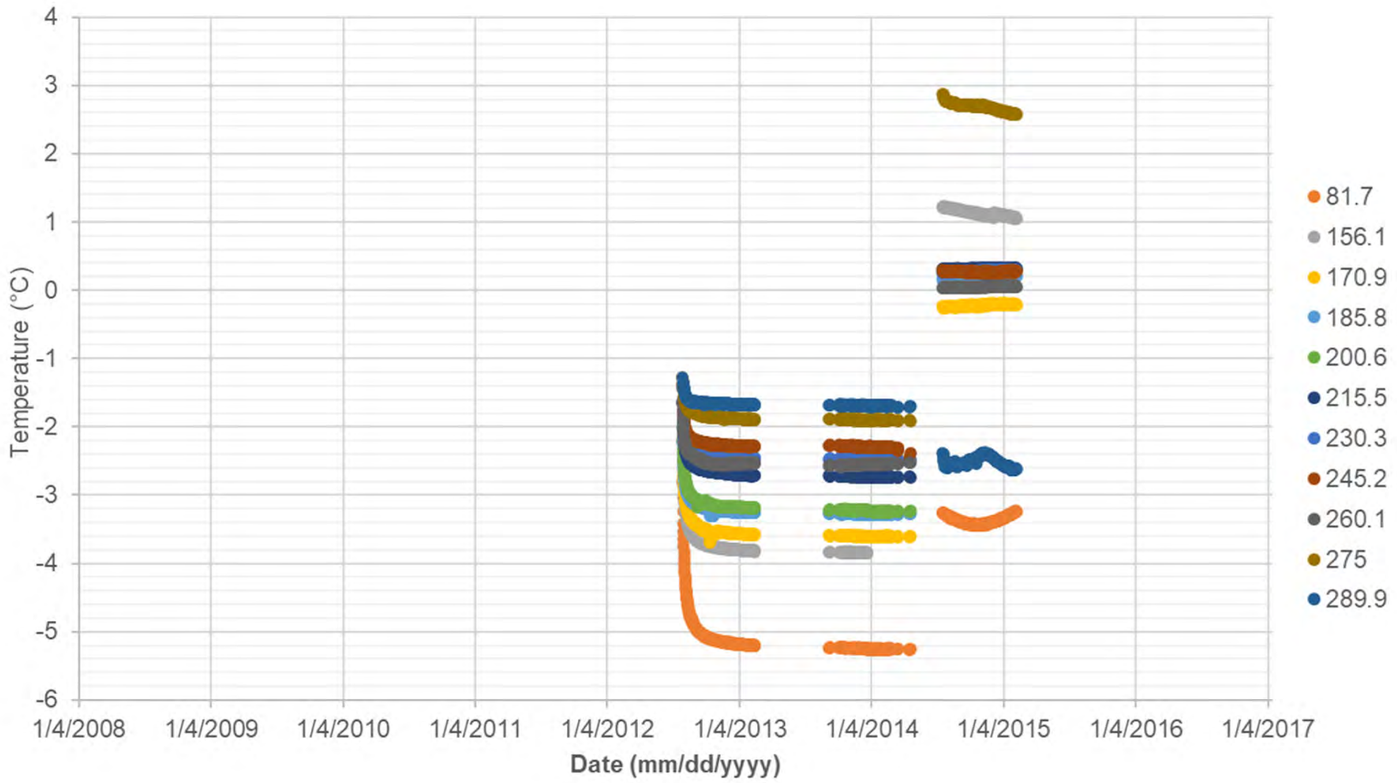
4/6/2015 0:00

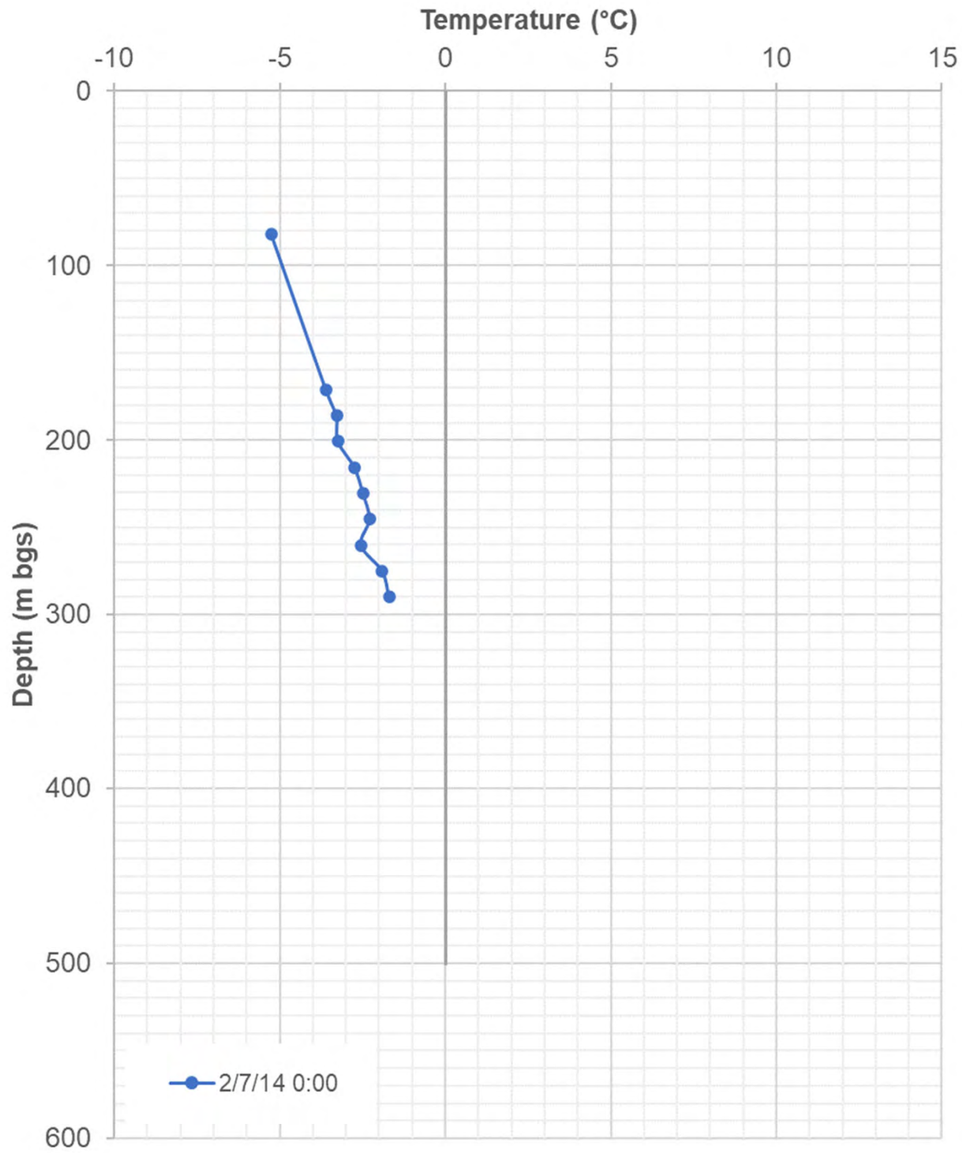
12-GSE-218


Temperature (°C)
4
2
0
-2
-4
-6
-8
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
26.8
46
65.1
84.3
103.4
122.6
141.7
160.9
180
199.2
218.3

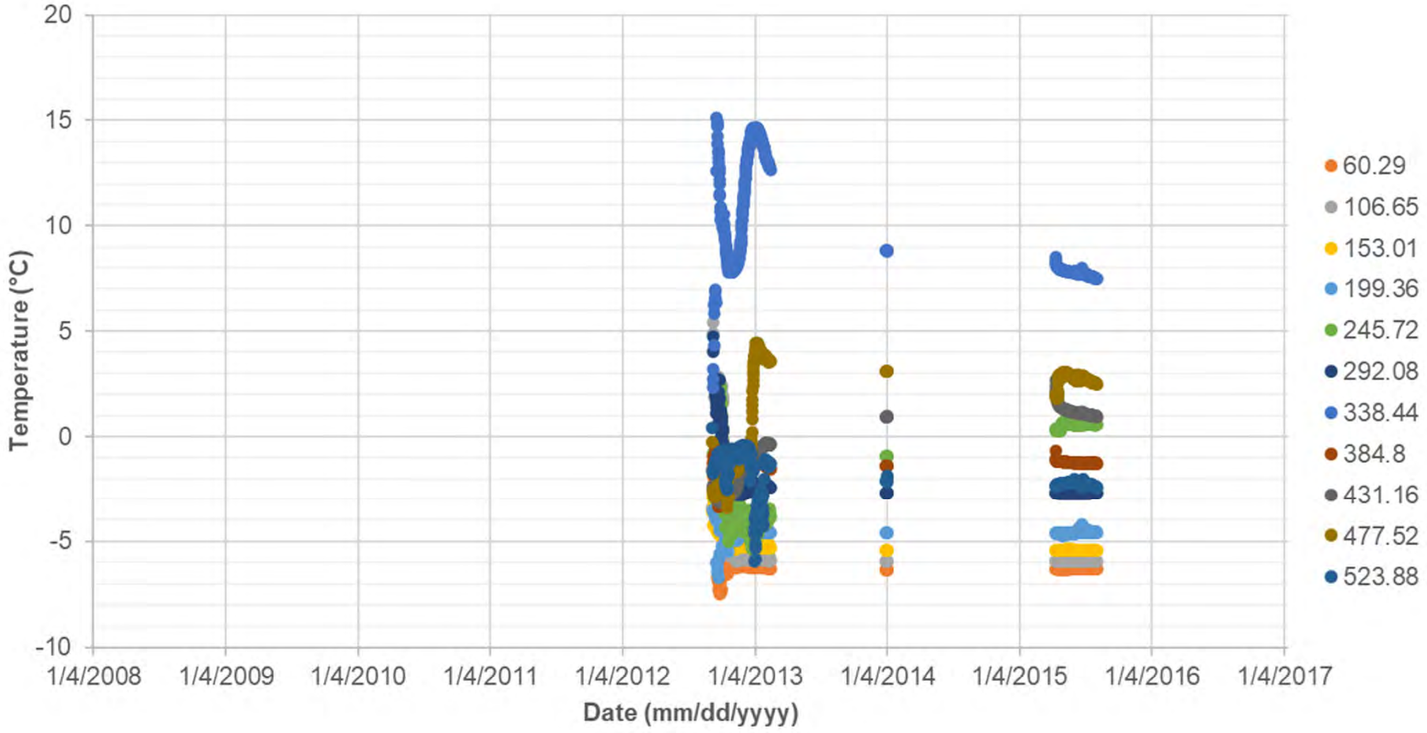

Temperature (°C)
-5
0
5
10
15
Depth (m bgs)
0
100
200
300
400
500
600
11/11/2013 12:00

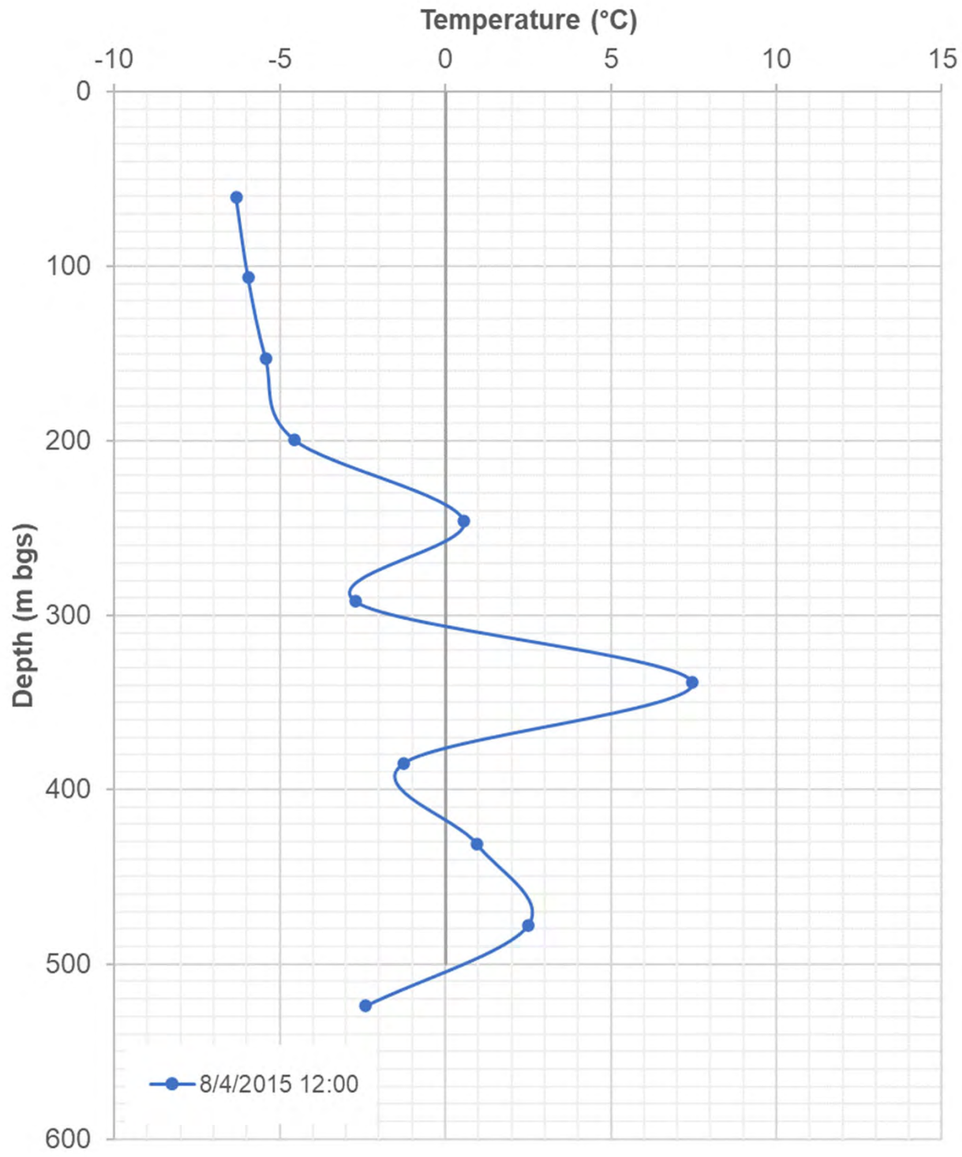
12-GSE-223


Temperature (°C)
4
3
2
1
0
-1
-2
-3
-4
-5
-6
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
81.7
156.1
170.9
185.8
200.6
215.5
230.3
245.2
260.1
275
289.9

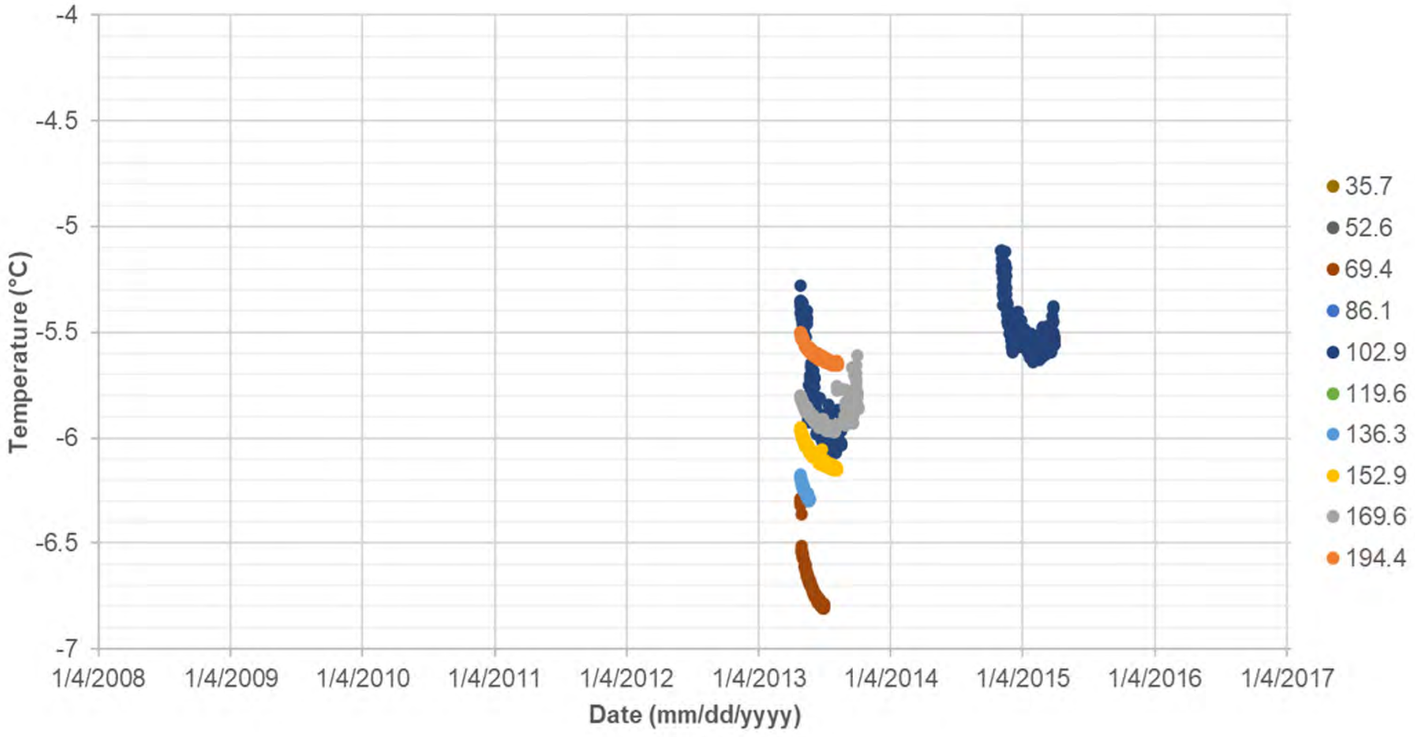

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
100
200
300
400
500
600
2/7/14 0:00

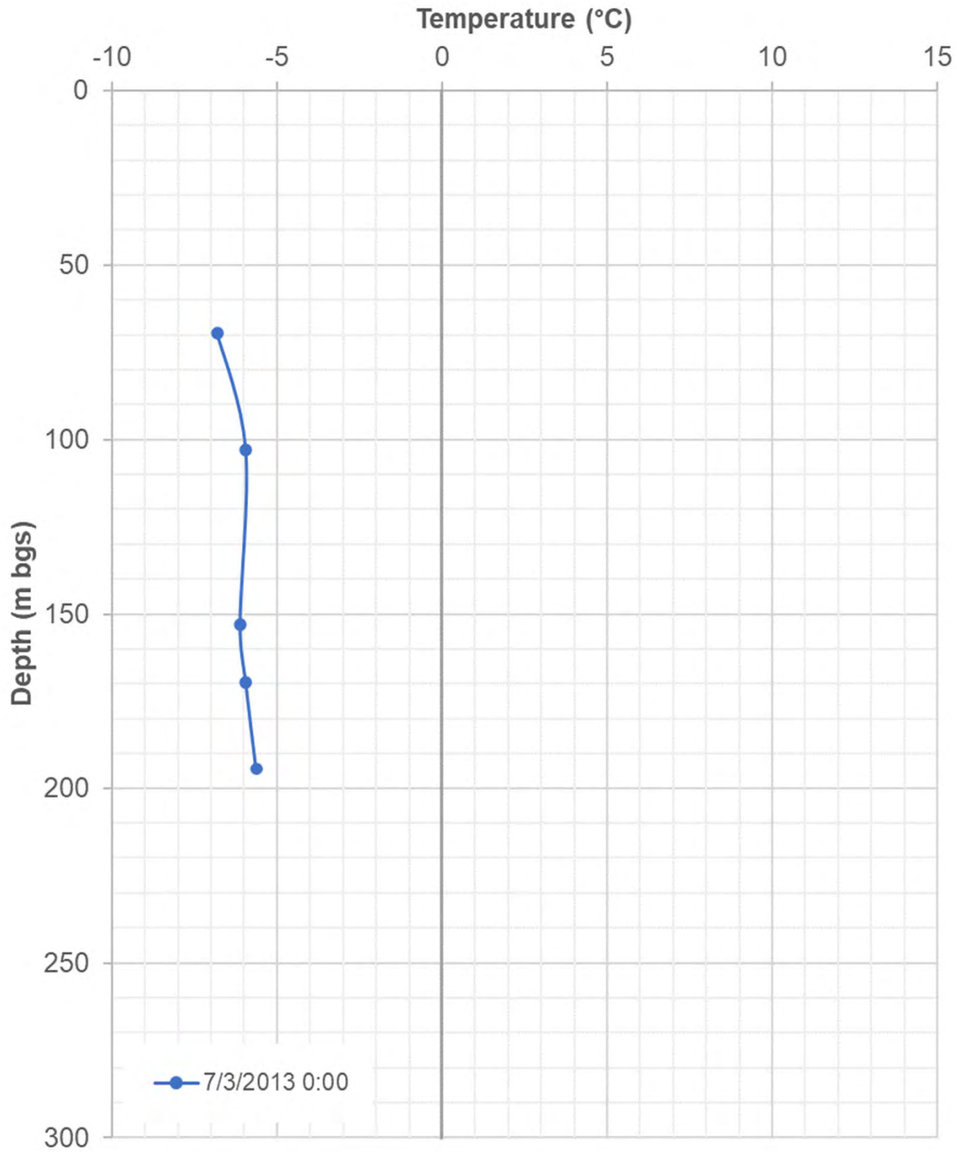
12-GSE-223C


20
15
10
5
0
-5
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
60.29
106.65
153.01
199.36
245.72
292.08
338.44
384.8
431.16
477.52
523.88

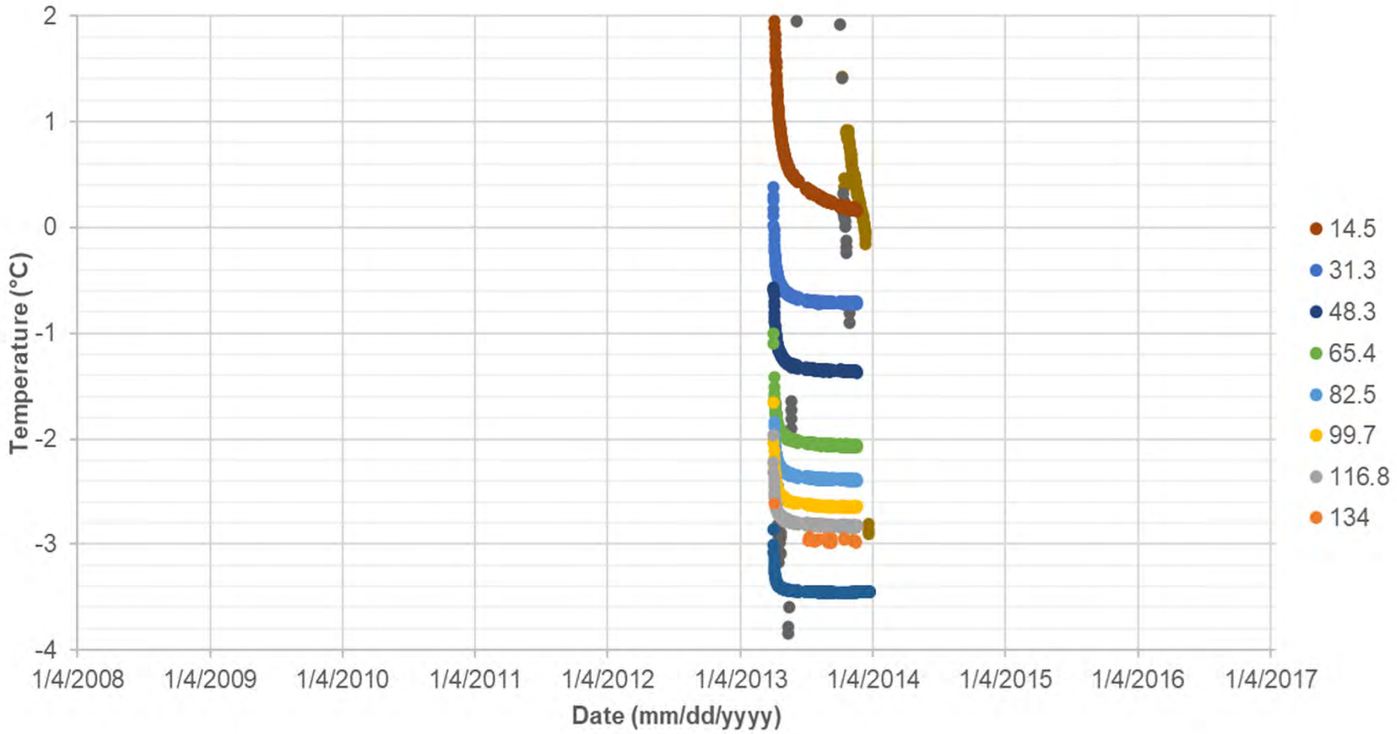

Temperature (°C)
-10
-5
0
5
10
15
0
100
200
300
400
500
600
Depth (m bgs)
8/4/2015 12:00

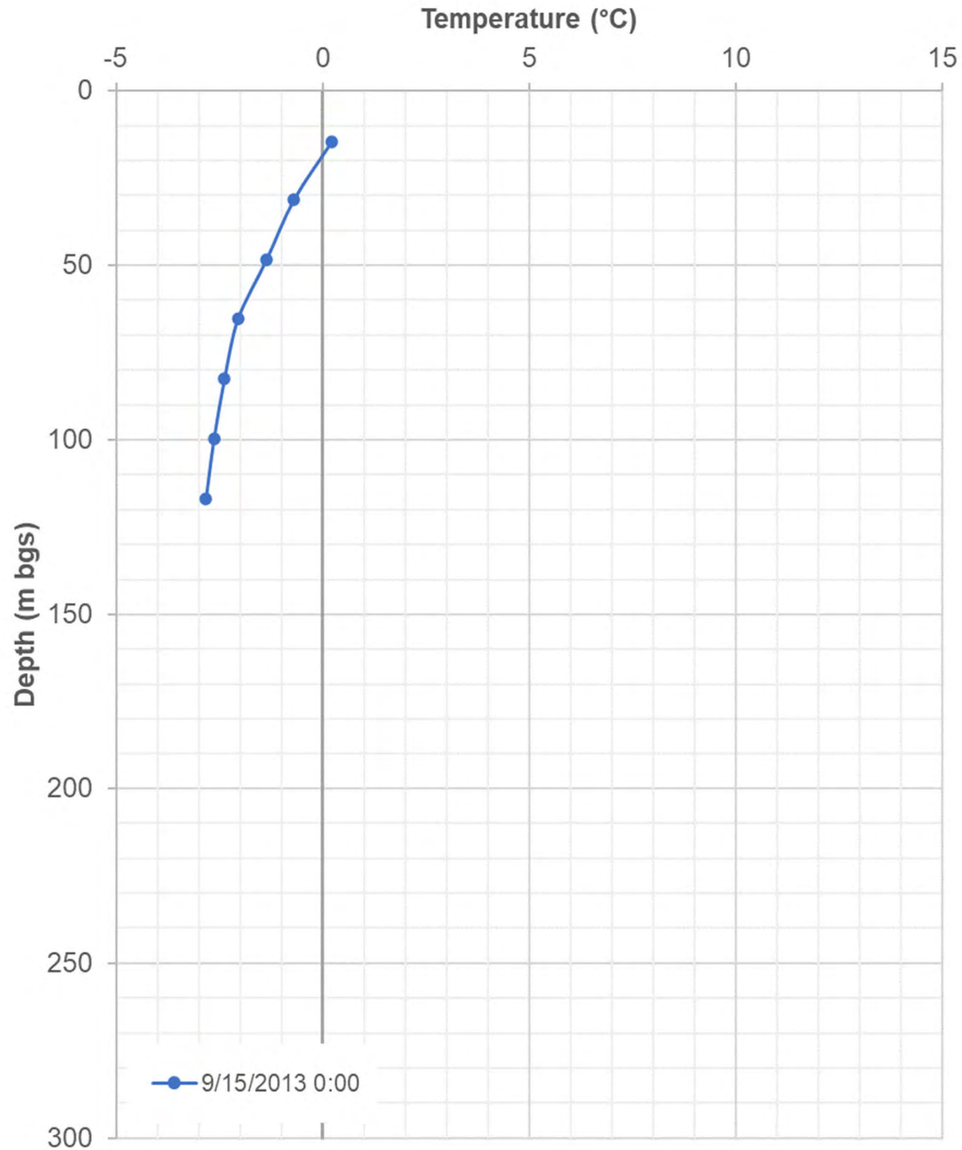
13-GSE-261B


-4
-4.5
-5
-5.5
-6
-6.5
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
35.7
52.6
69.4
86.1
102.9
119.6
136.3
152.9
169.6
194.4

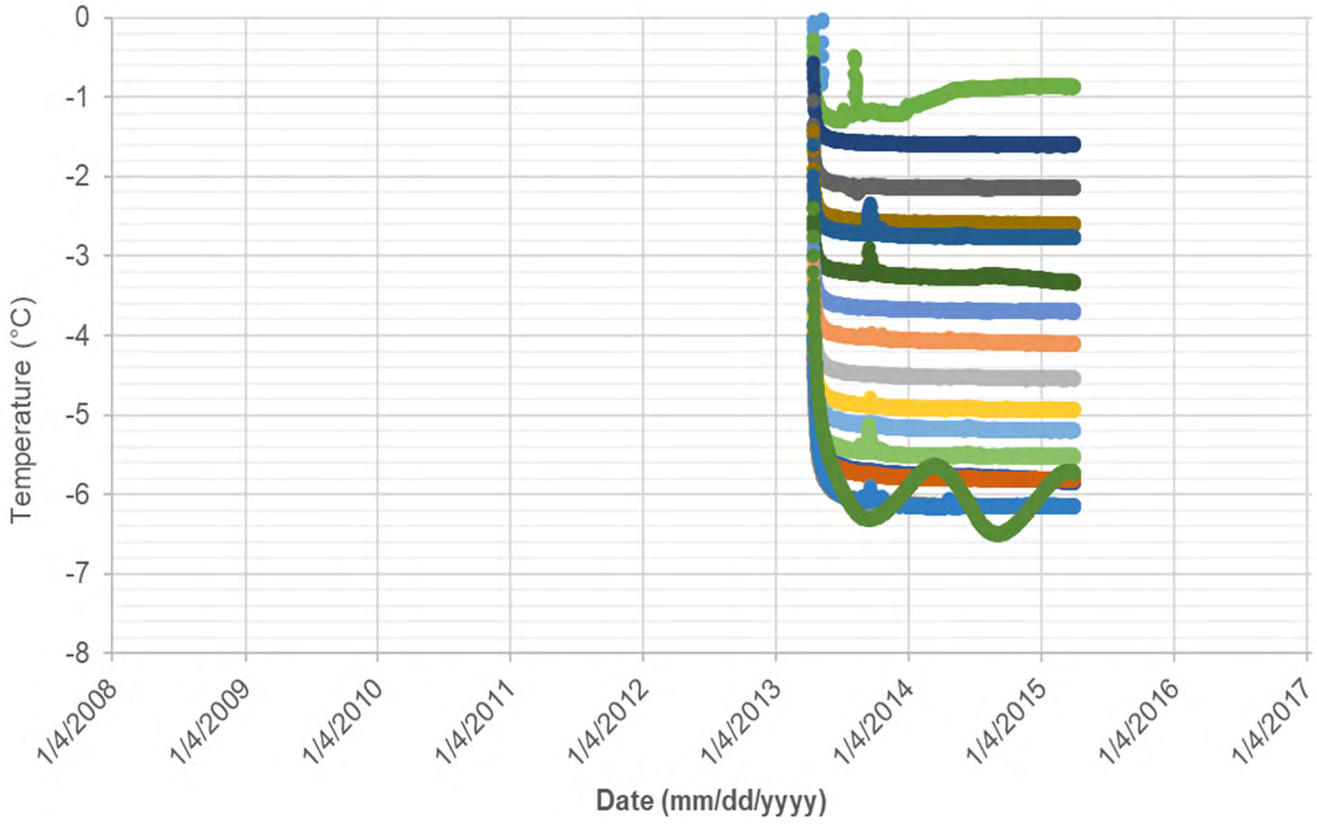

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
7/3/2013 0:00

13-GSE-277B

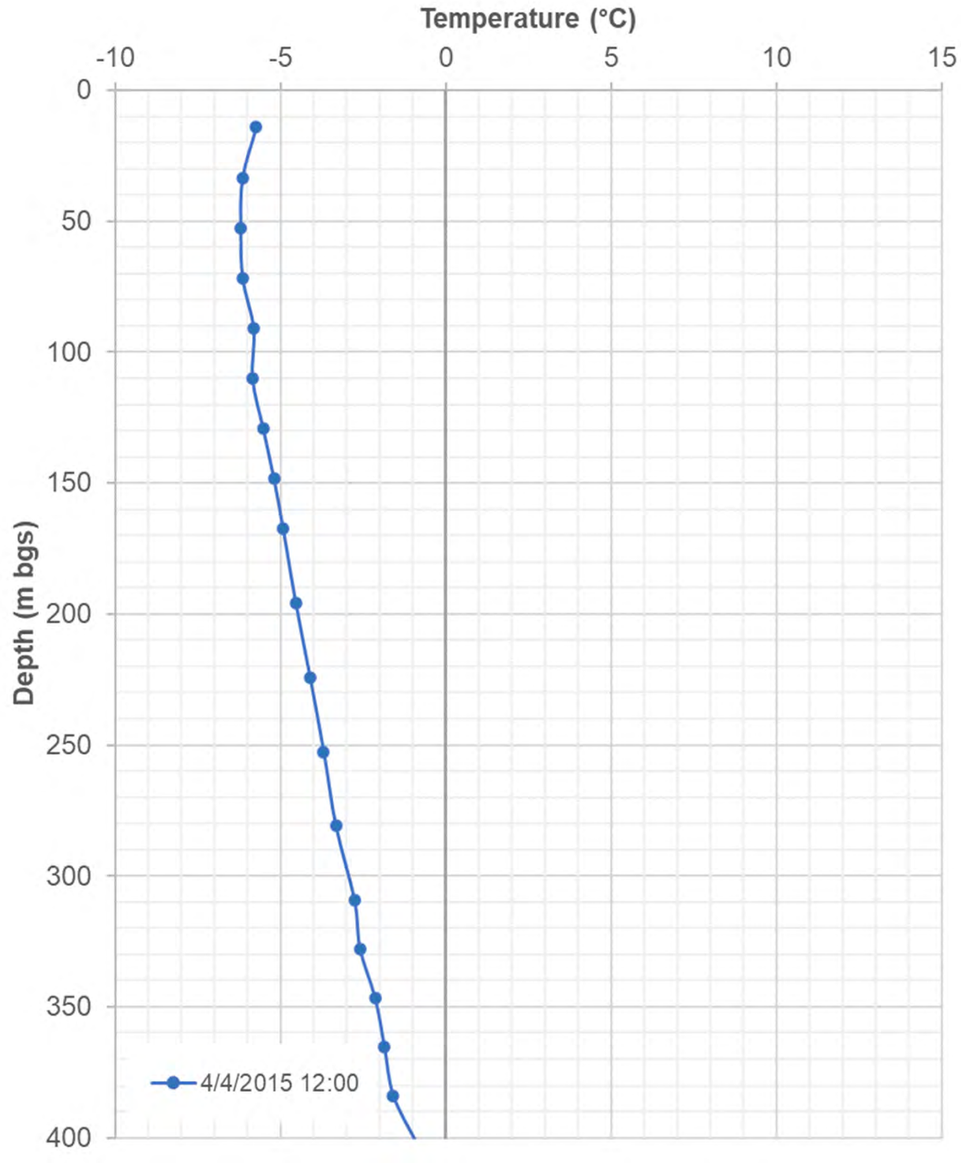

2
1
0
-1
-2
-3
-4
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
14.5
31.3
48.3
65.4
82.5
99.7
116.8
134


Temperature (°C)
-5
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
9/15/2013 0:00

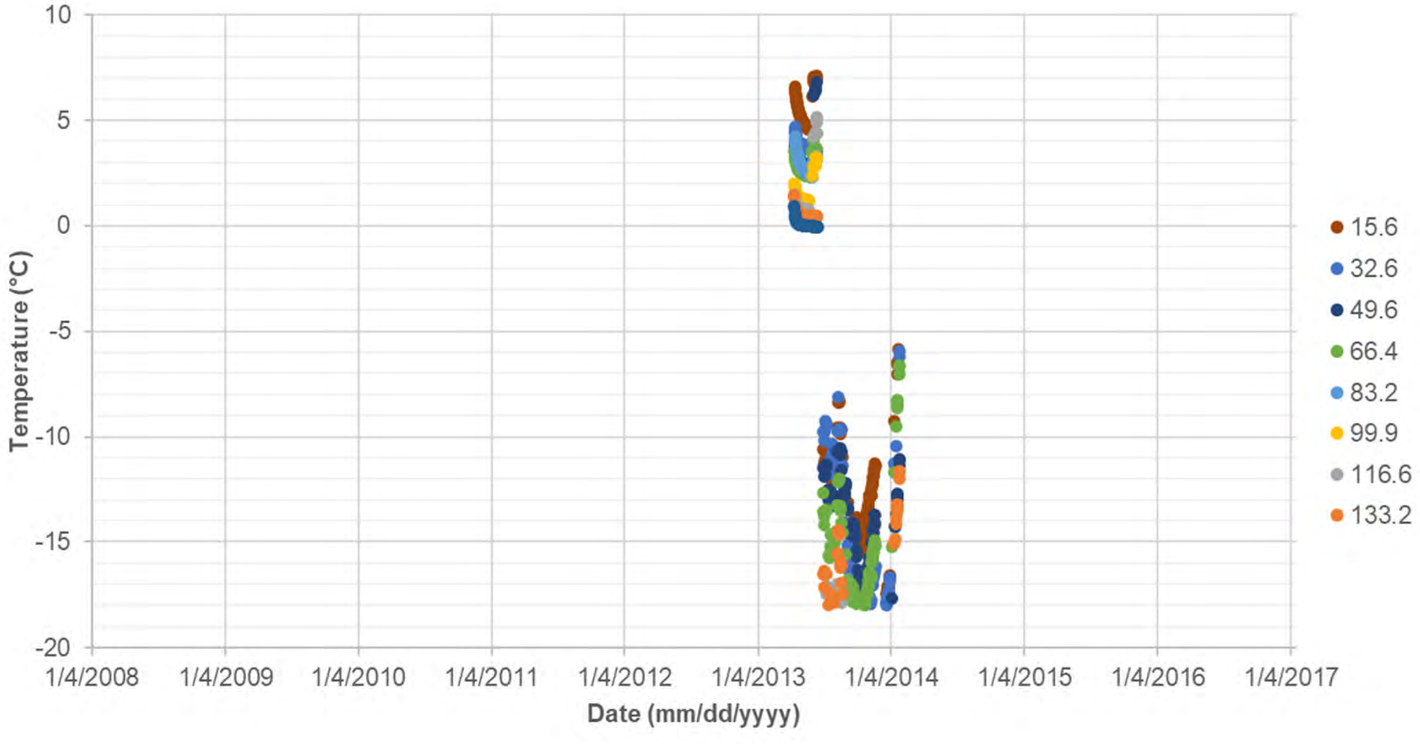
13-GSE-279

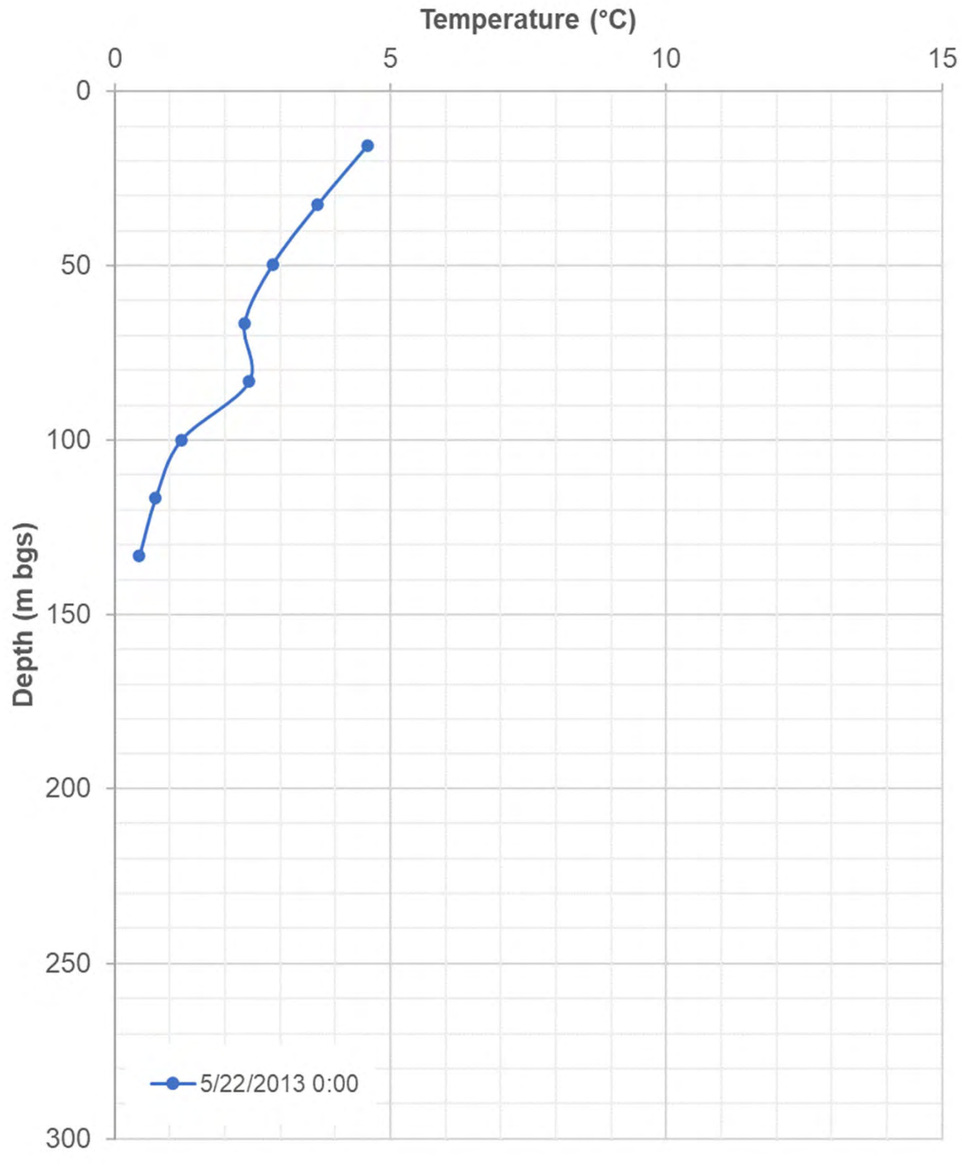

0
-1
-2
-3
-4
-5
-6
-7
-8
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


493.8
475.8
457.7
439.4
421
402.5
383.9
346.7
327.9
309.2
280.9
252.6
224.2
195.8
167.3
148.3
129.2
110.1
91
71.8
33.4
14.2

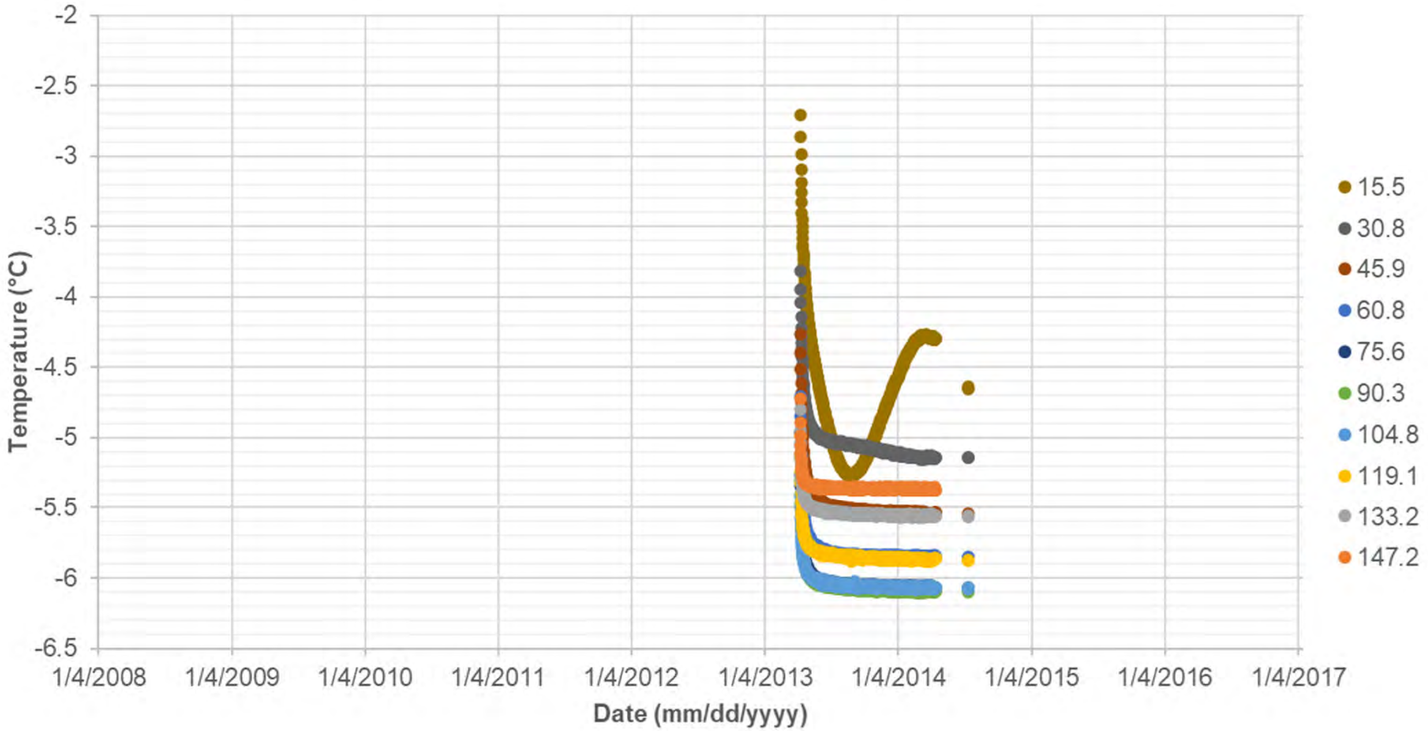

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/4/2015 12:00

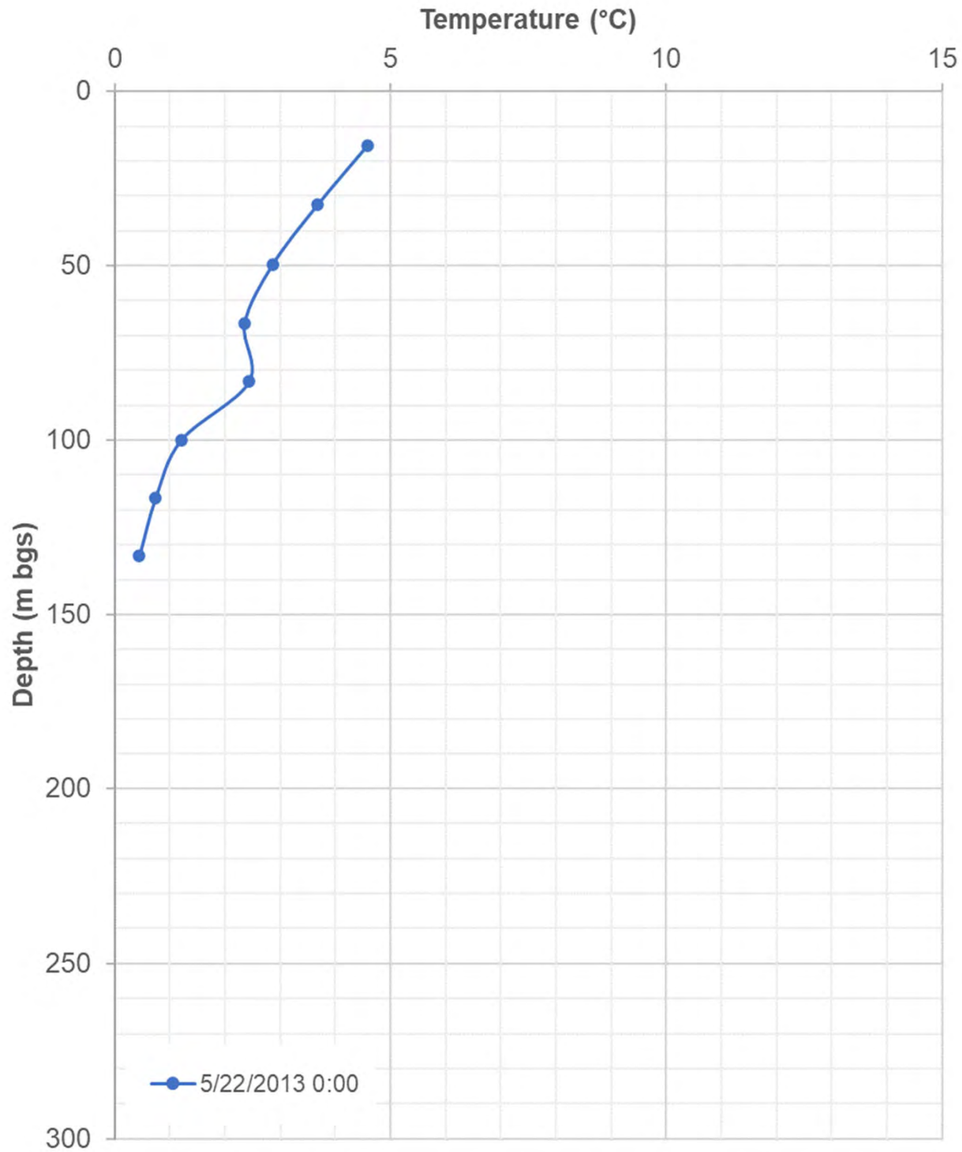
13-GSE-284


10
5
0
-5
-10
-15
-20
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.6
32.6
49.6
66.4
83.2
99.9
116.6
133.2

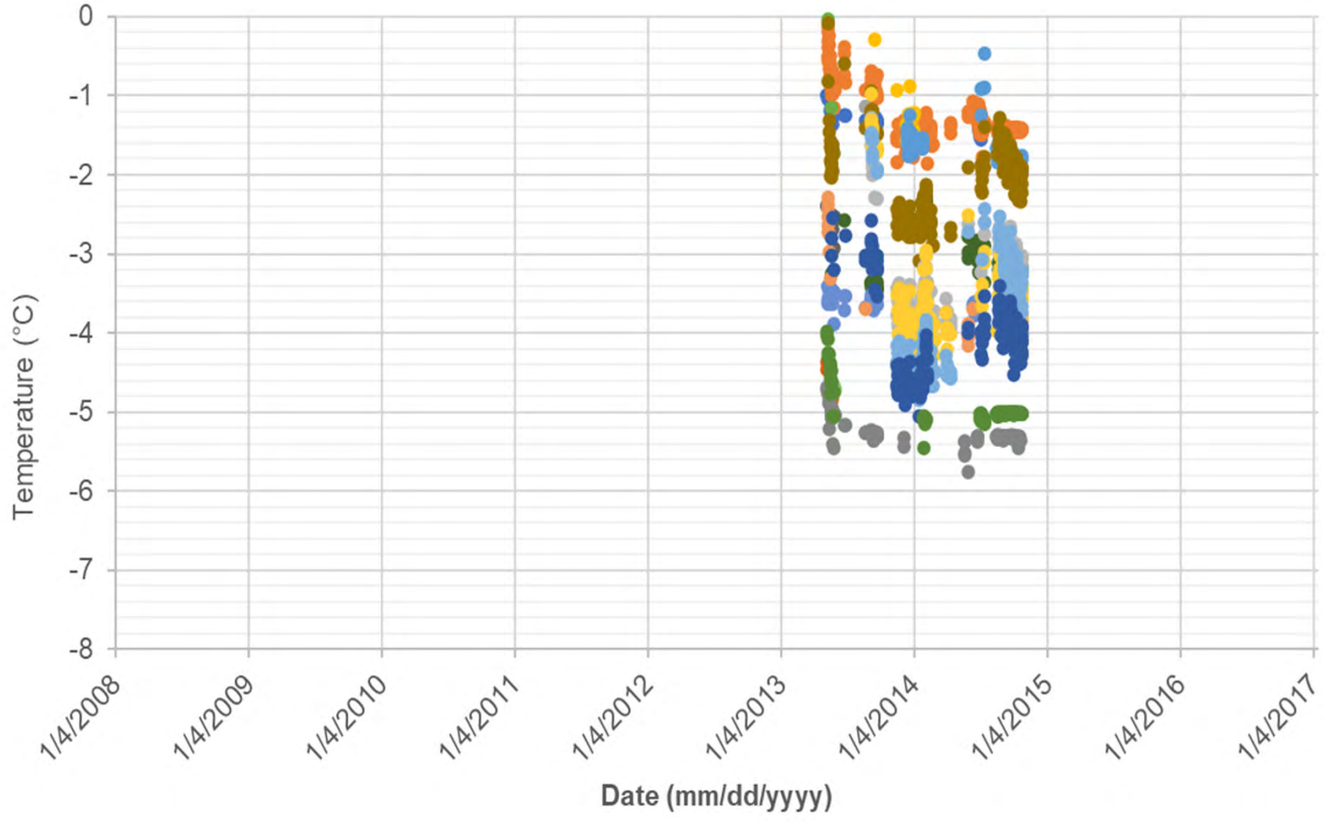

Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
5/22/2013 0:00

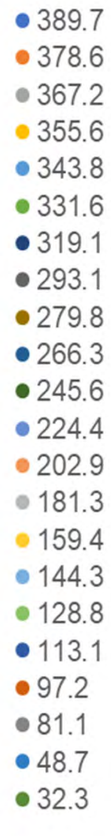
13-GSE-286

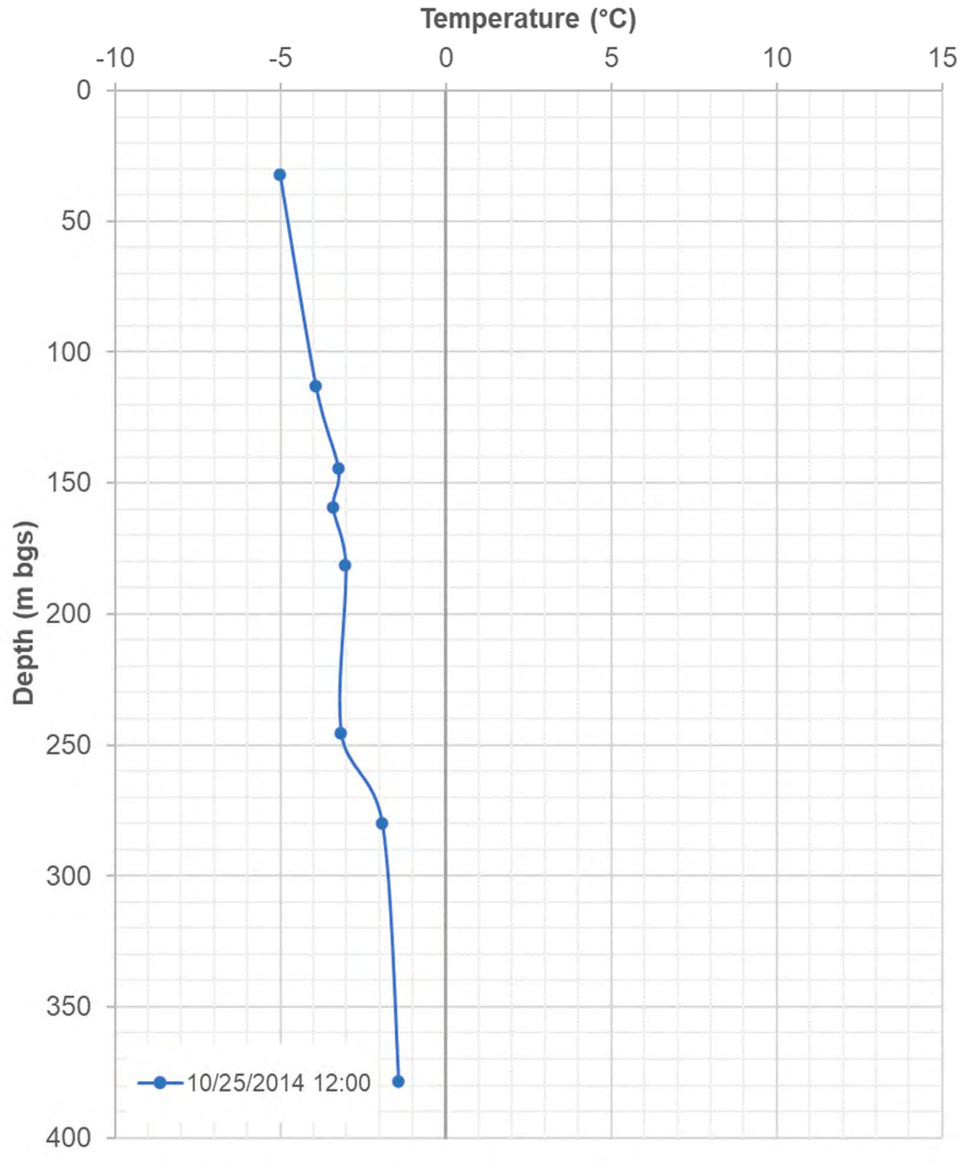

-2
-2.5
-3
-3.5
-4
-4.5
-5
-5.5
-6
-6.5
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
30.8
45.9
60.8
75.6
90.3
104.8
119.1
133.2
147.2


Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
5/22/2013 0:00

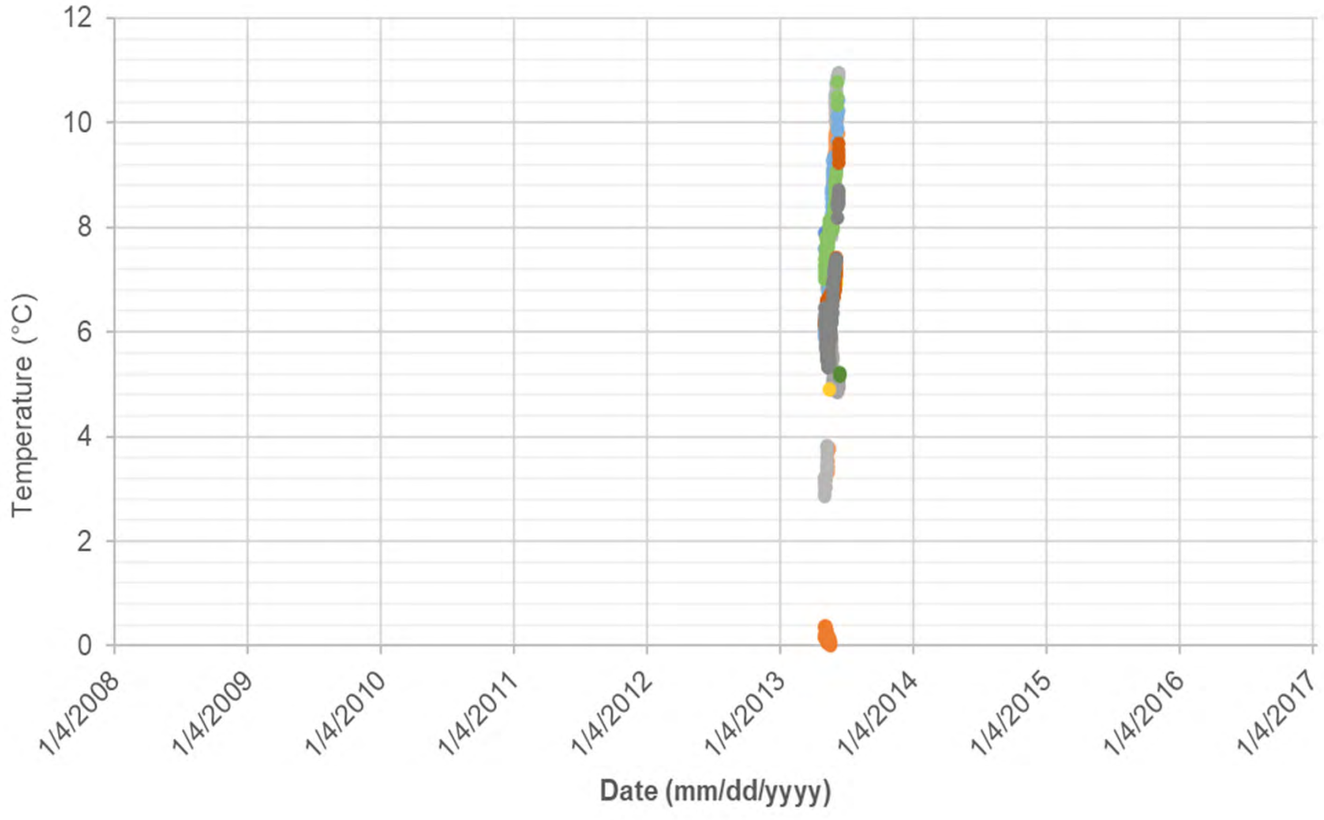
13-GSE-288

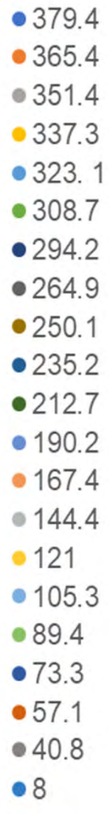

0
-1
-2
-3
-4
-5
-6
-7
-8
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)

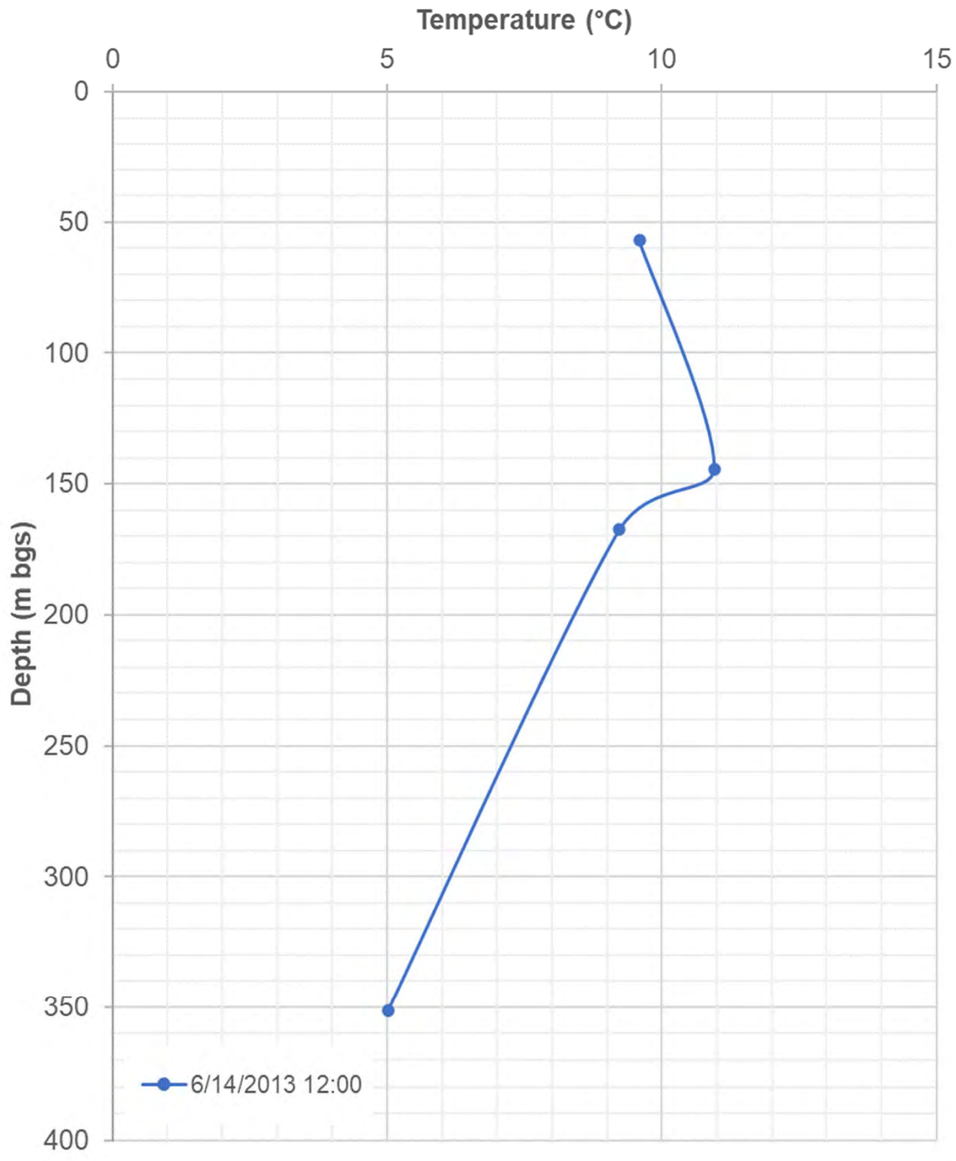

389.7
378.6
367.2
355.6
343.8
331.6
319.1
293.1
279.8
266.3
245.6
224.4
202.9
181.3
159.4
144.3
128.8
113.1
97.2
81.1
48.7
32.3


Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
10/25/2014 12:00

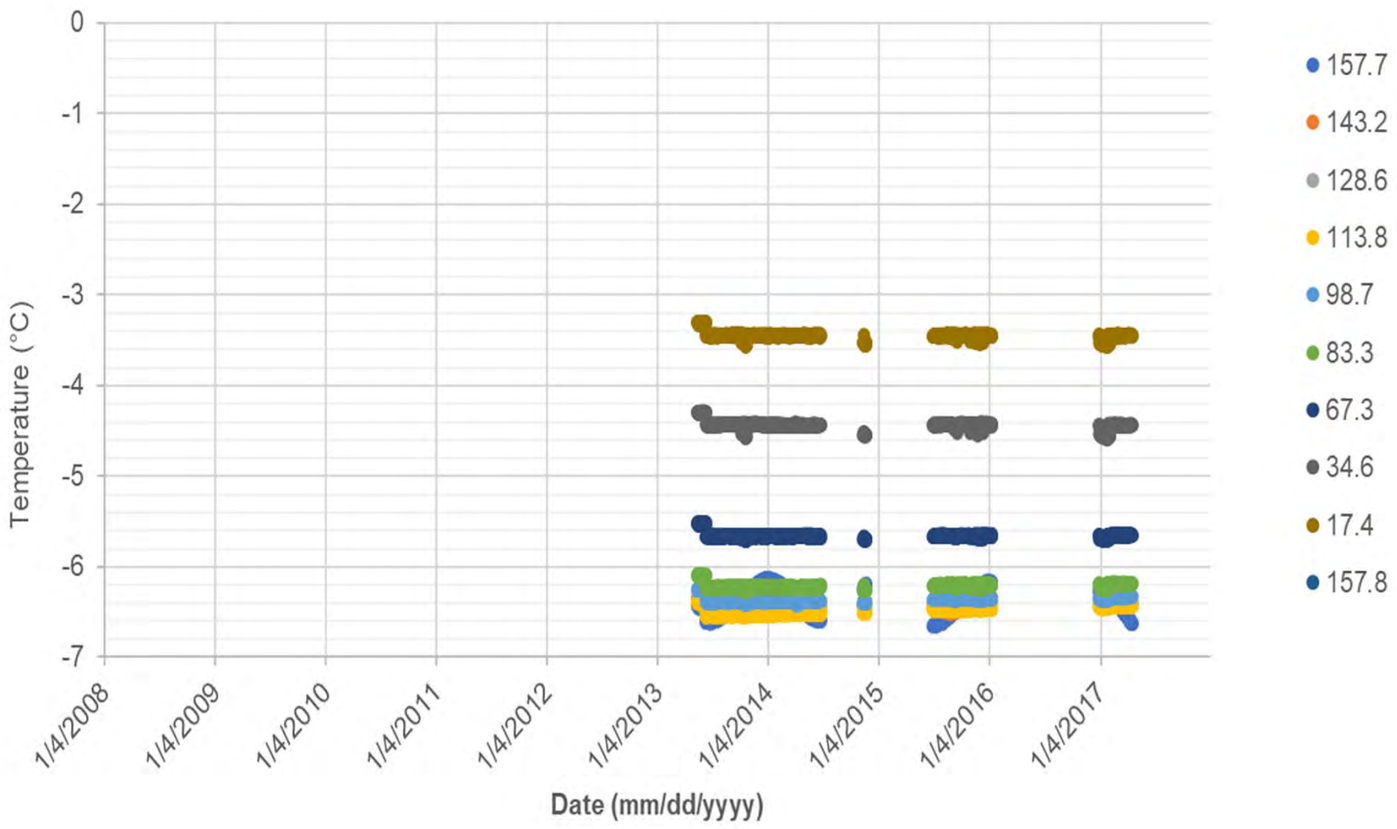
13-GSE-289

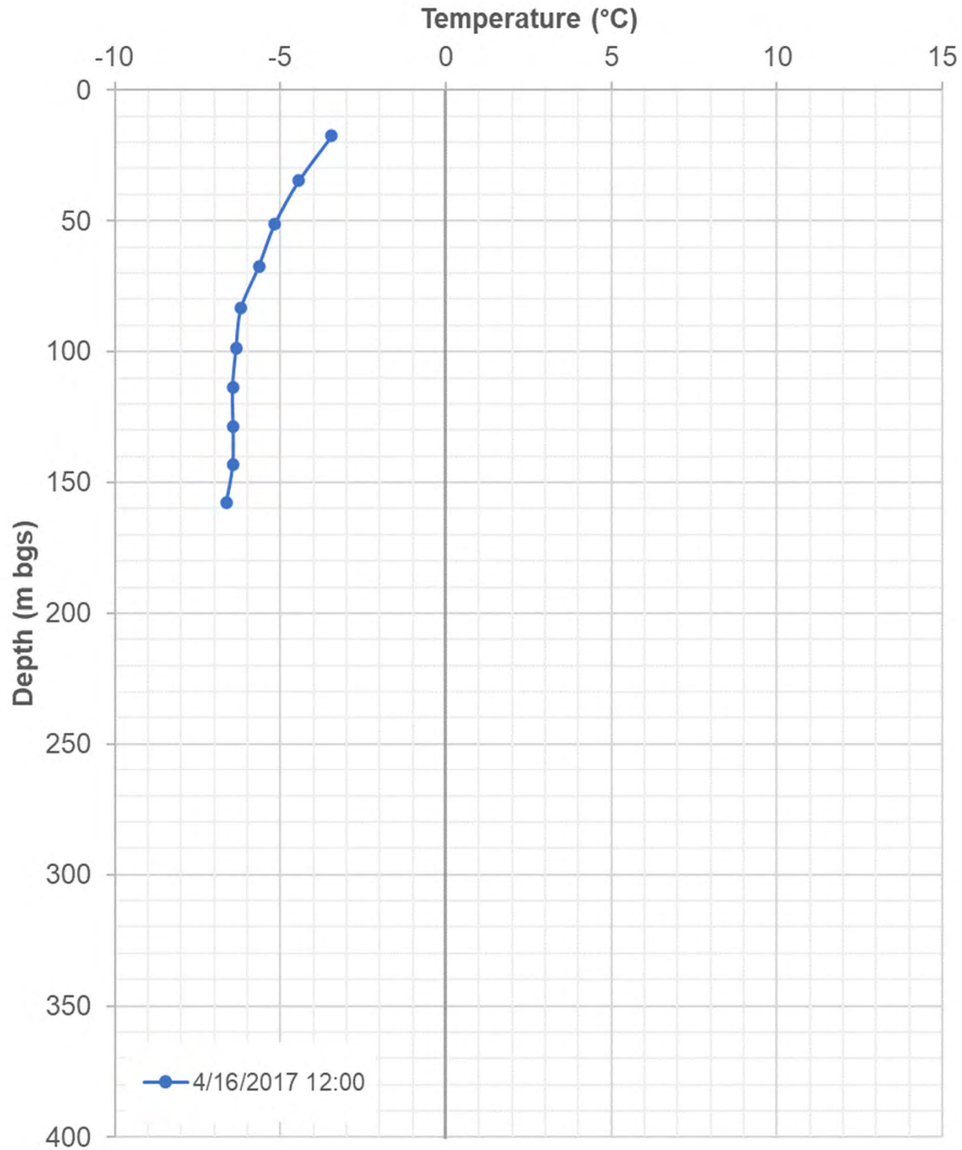

Temperature (°C)
12
10
8
6
4
2
0
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


379.4
365.4
351.4
337.3
323. 1
308.7
294.2
264.9
250.1
235.2
212.7
190.2
167.4
144.4
121
105.3
89.4
73.3
57.1
40.8
8

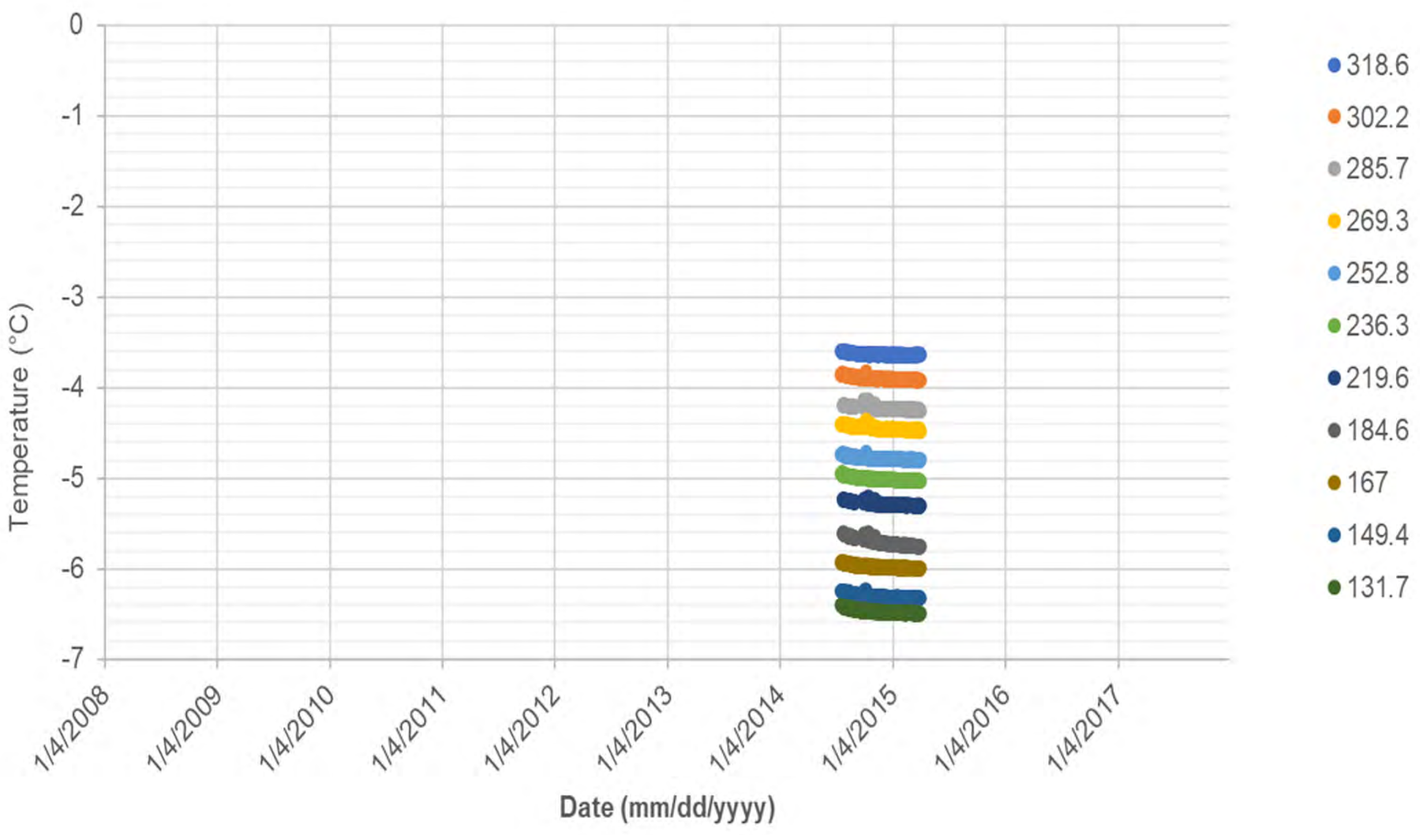

Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
6/14/2013 12:00

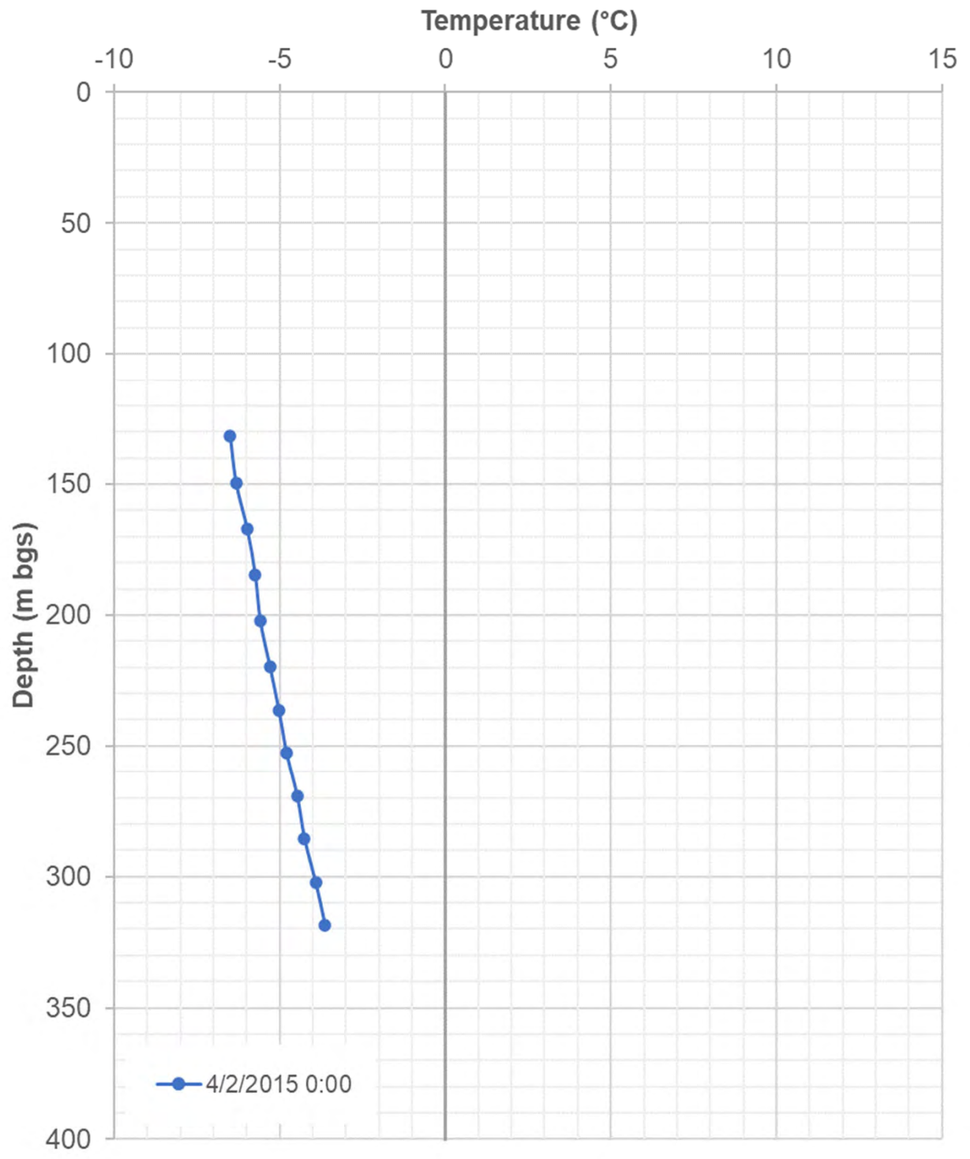
13-GSE-314


Temperature (°C)
0
-1
-2
-3
-4
-5
-6
-7
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
157.7
143.2
128.6
113.8
98.7
83.3
67.3
34.6
17.4
157.8

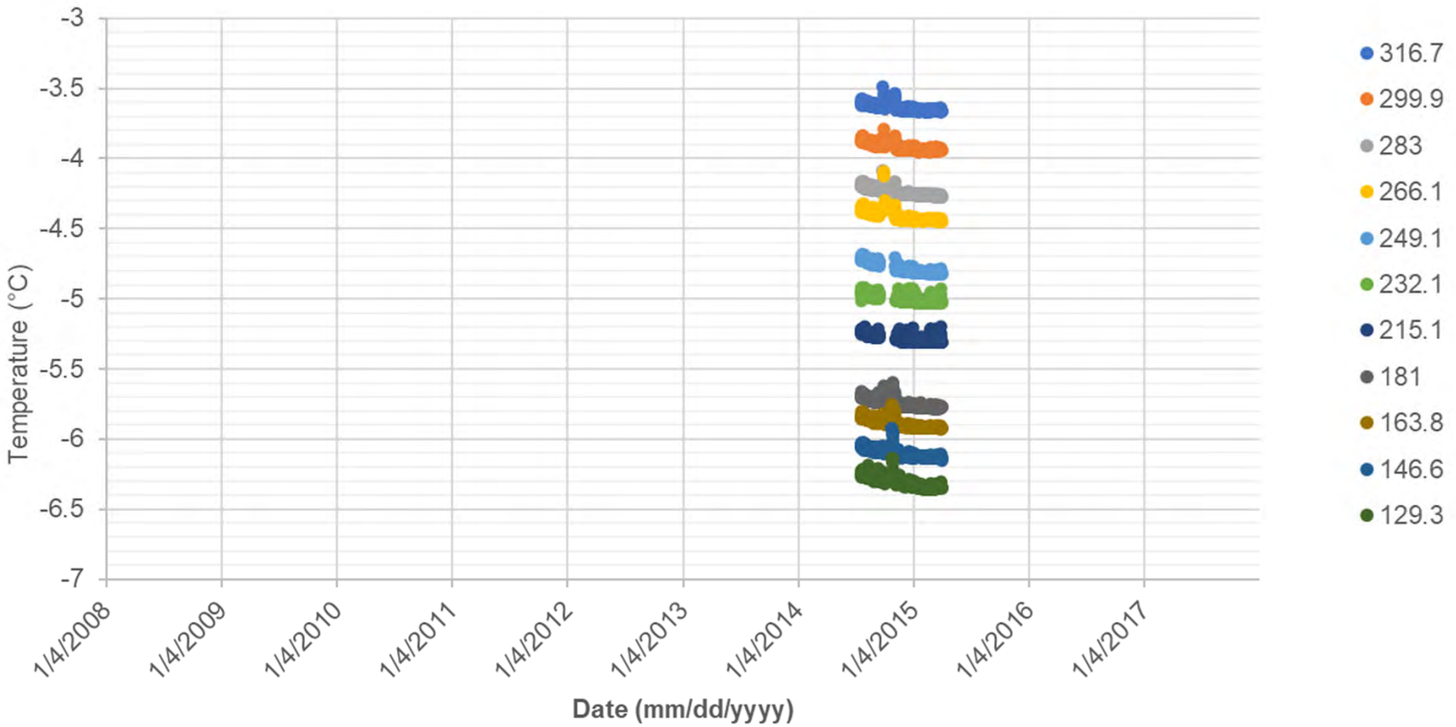

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/16/2017 12:00

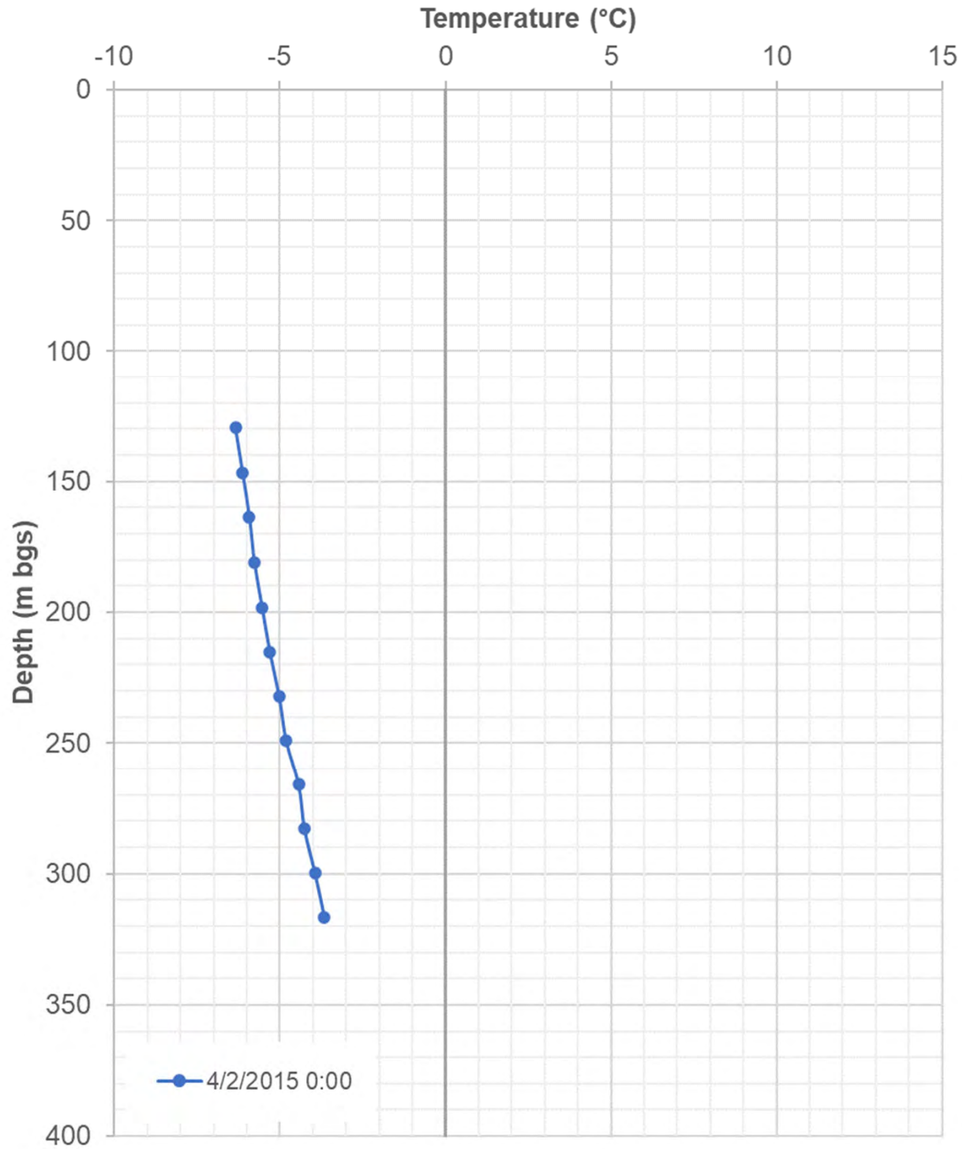
14-GSE-468


0
-1
-2
-3
-4
-5
-6
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
318.6
302.2
285.7
269.3
252.8
236.3
219.6
184.6
167
149.4
131.7

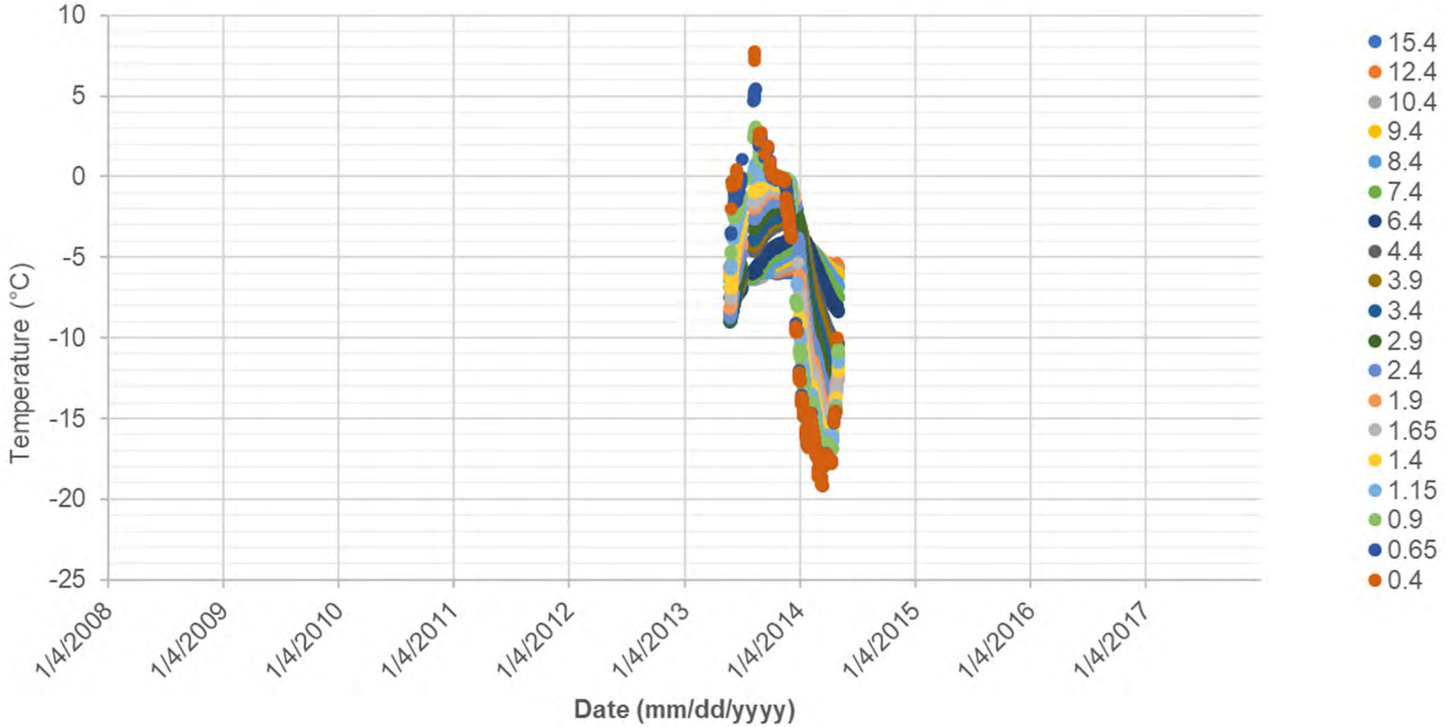

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/2/2015 0:00

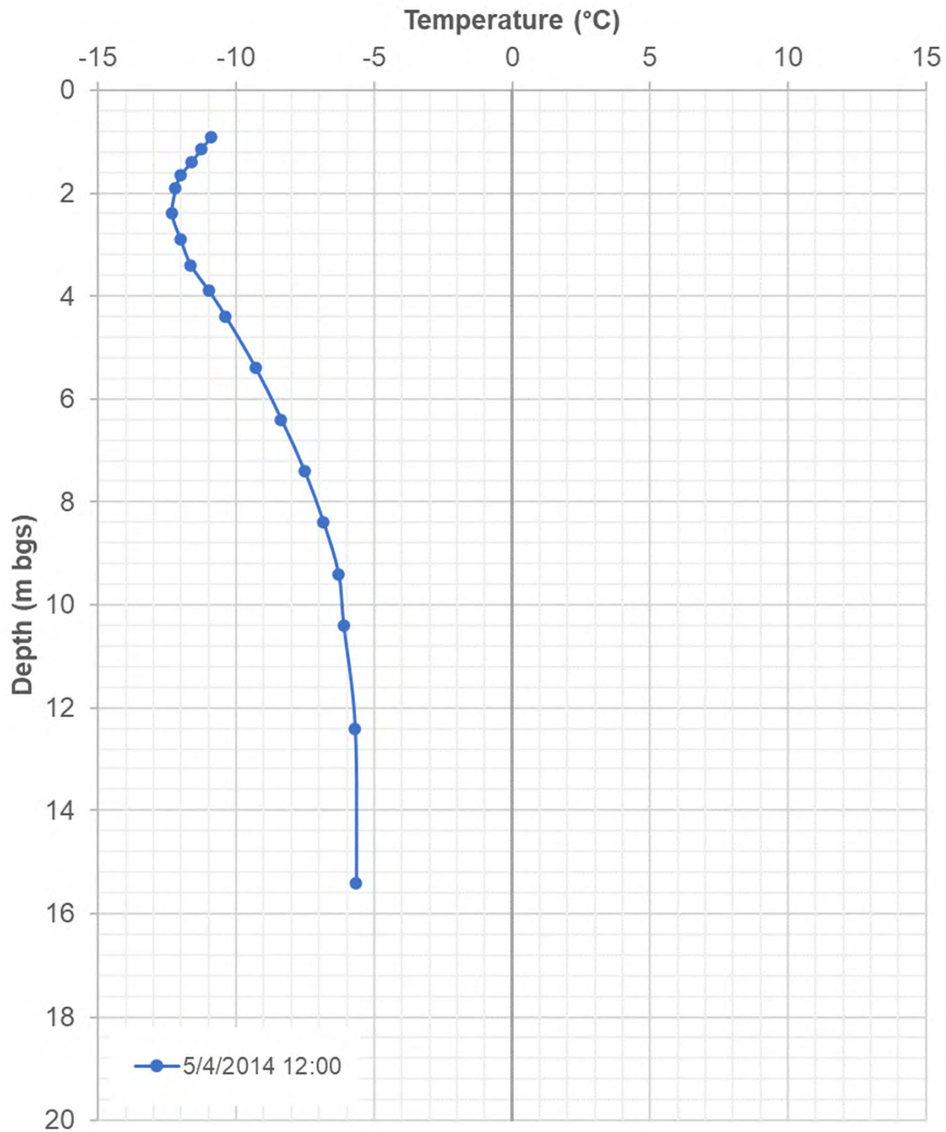
14-GSE-472


-3
-3.5
-4
-4.5
-5
-5.5
-6
-6.5
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
316.7
299.9
283
266.1
249.1
232.1
215.1
181
163.8
146.6
129.3

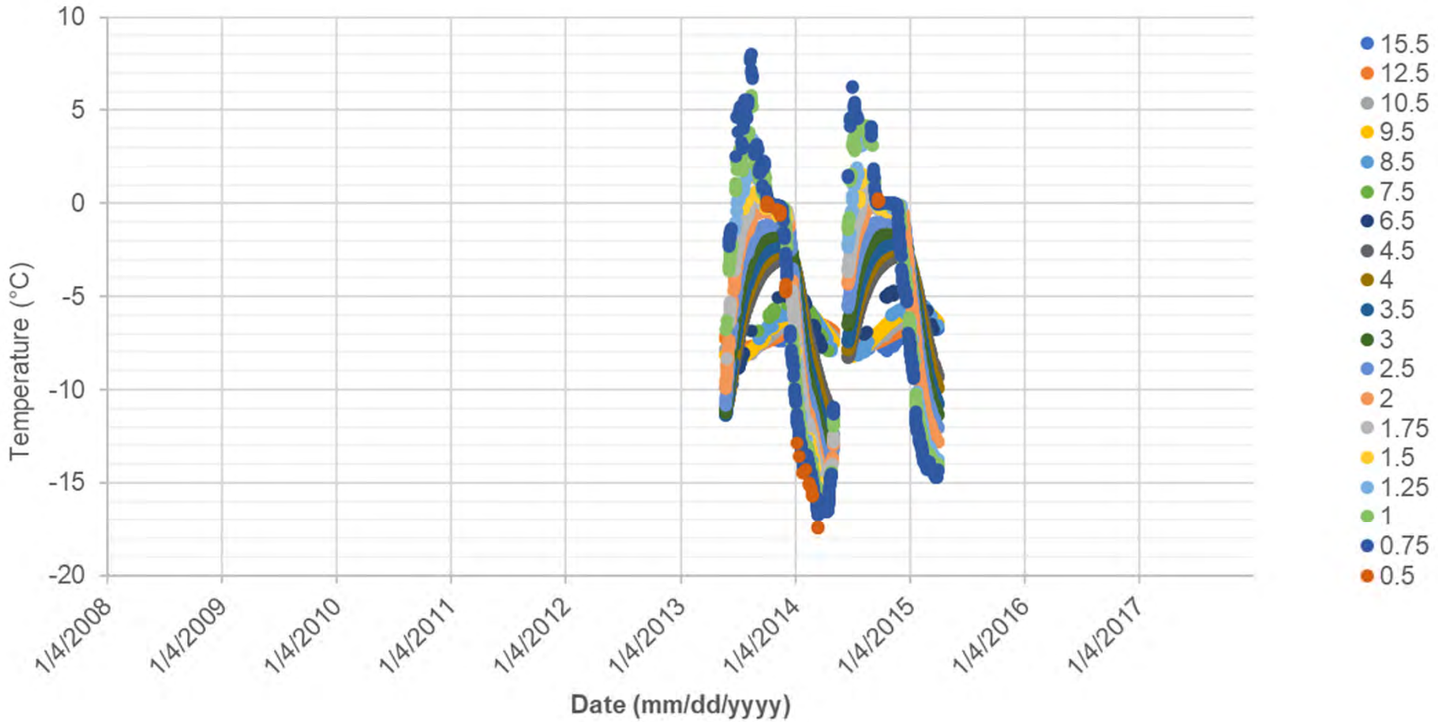

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/2/2015 0:00

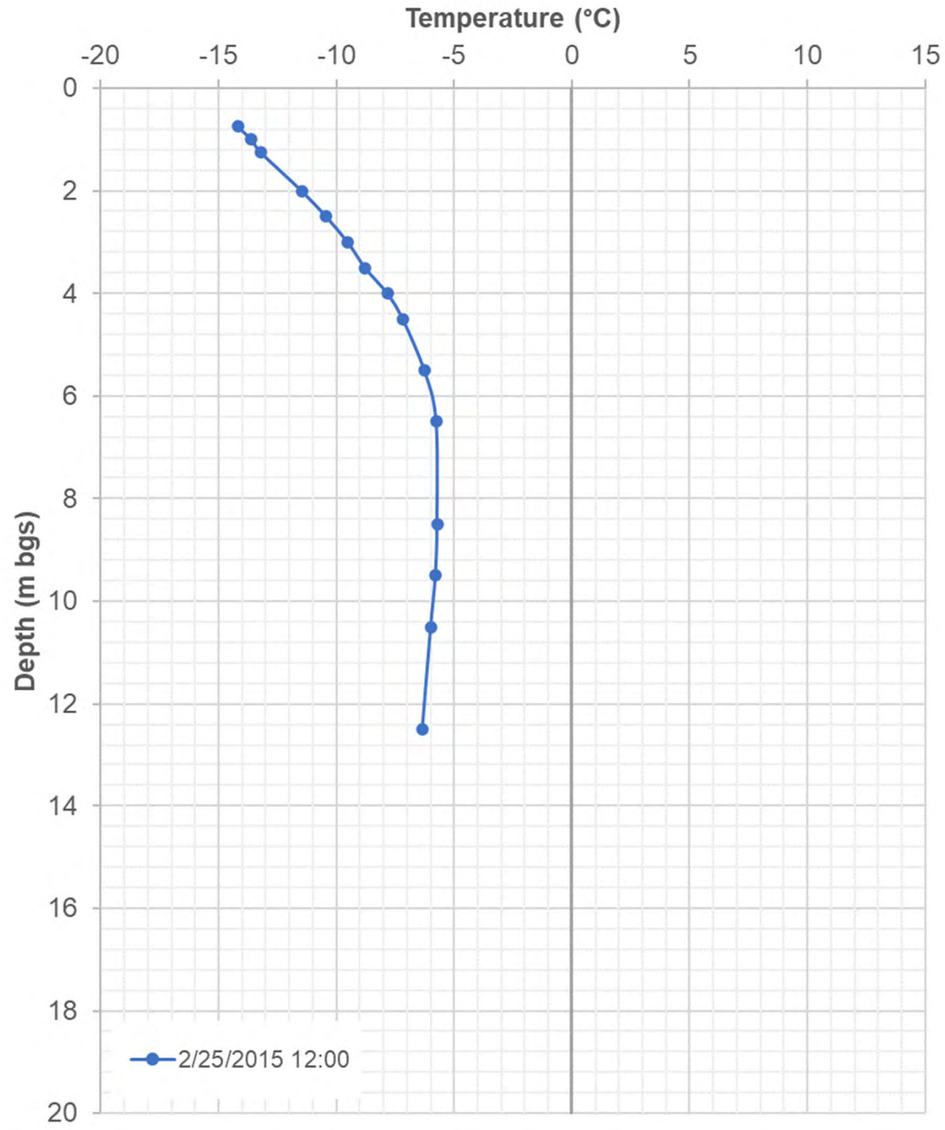
GAS-GT13-01


Temperature (°C)
10
5
0
-5
-10
-15
-20
-25
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.4
12.4
10.4
9.4
8.4
7.4
6.4
4.4
3.9
3.4
2.9
2.4
1.9
1.65
1.4
1.15
0.9
0.65
0.4

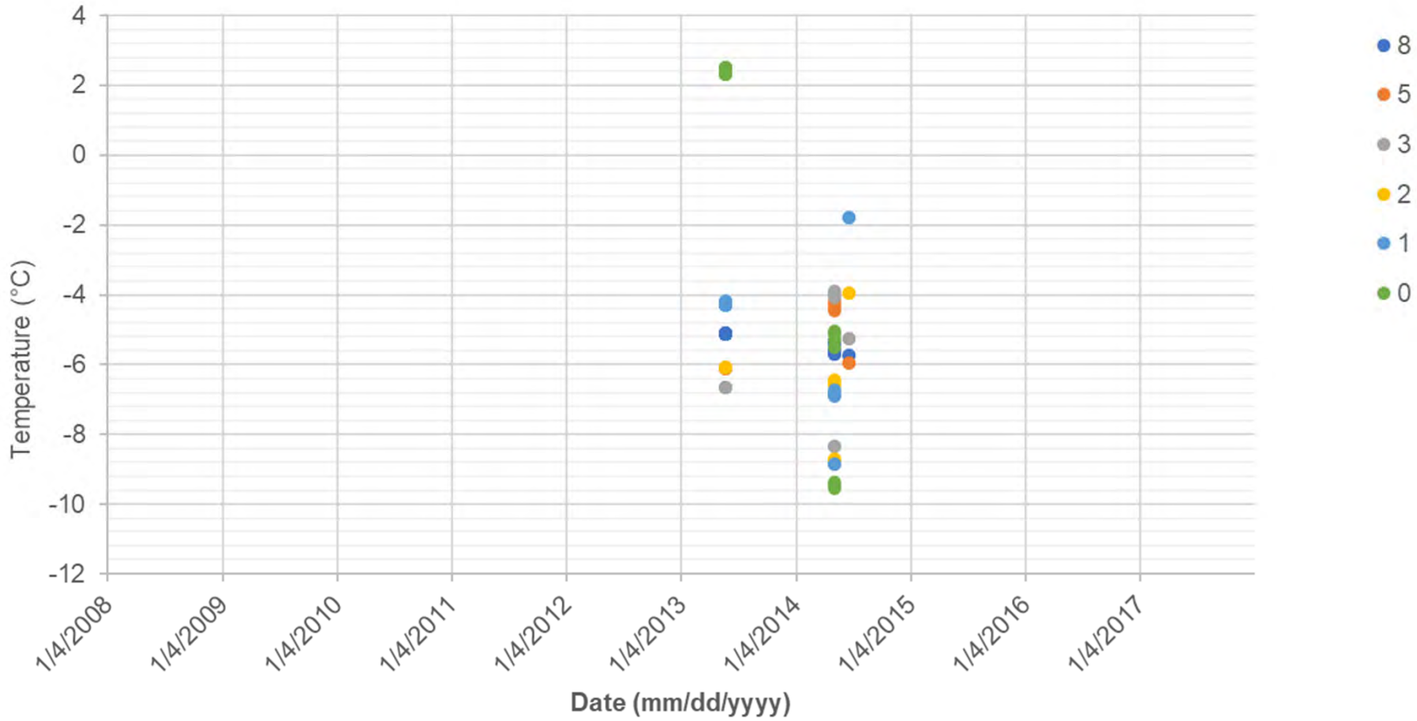

Temperature (°C)
-15
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
5/4/2014 12:00

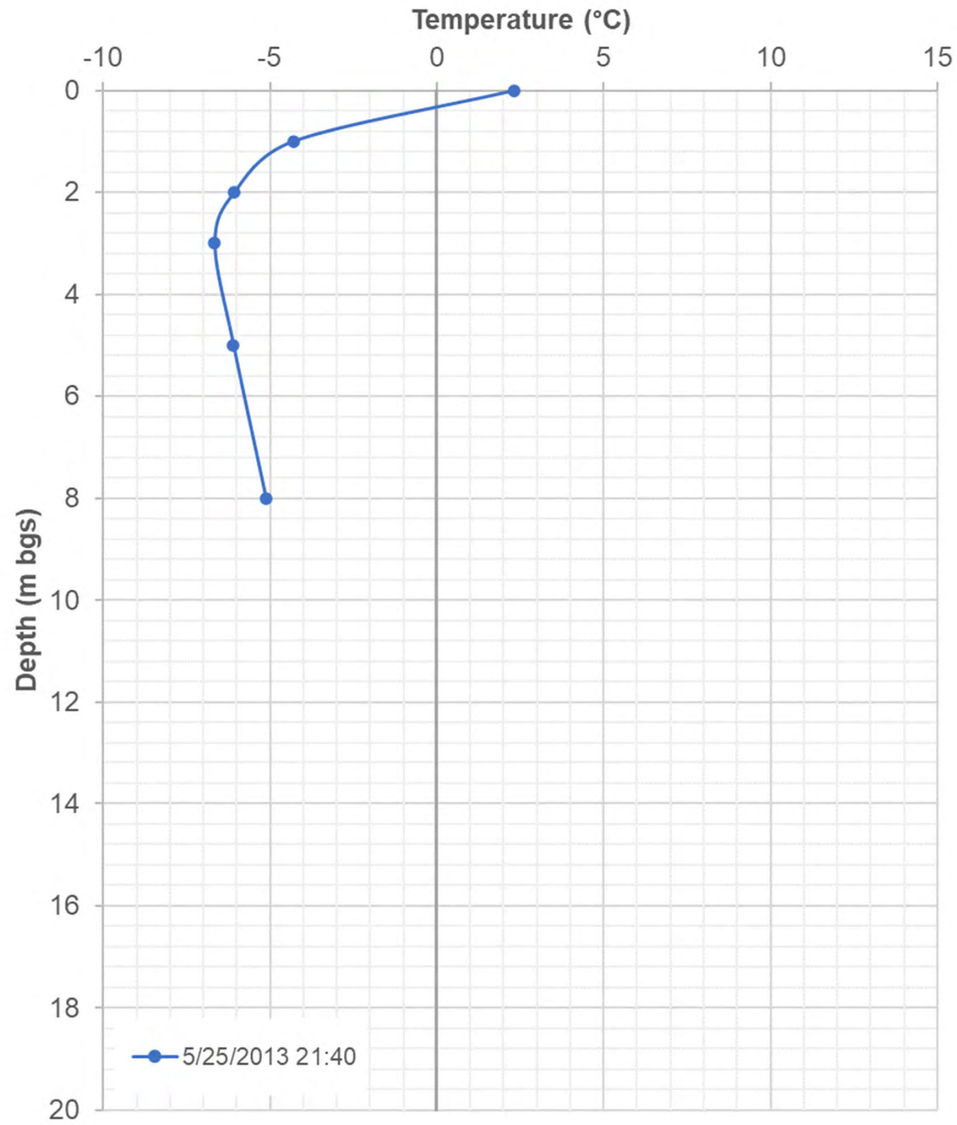
GAS-GT13-02


10
5
0
-5
-10
-15
-20
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
12.5
10.5
9.5
8.5
7.5
6.5
4.5
4
3.5
3
2.5
2
1.75
1.5
1.25
1
0.75
0.5

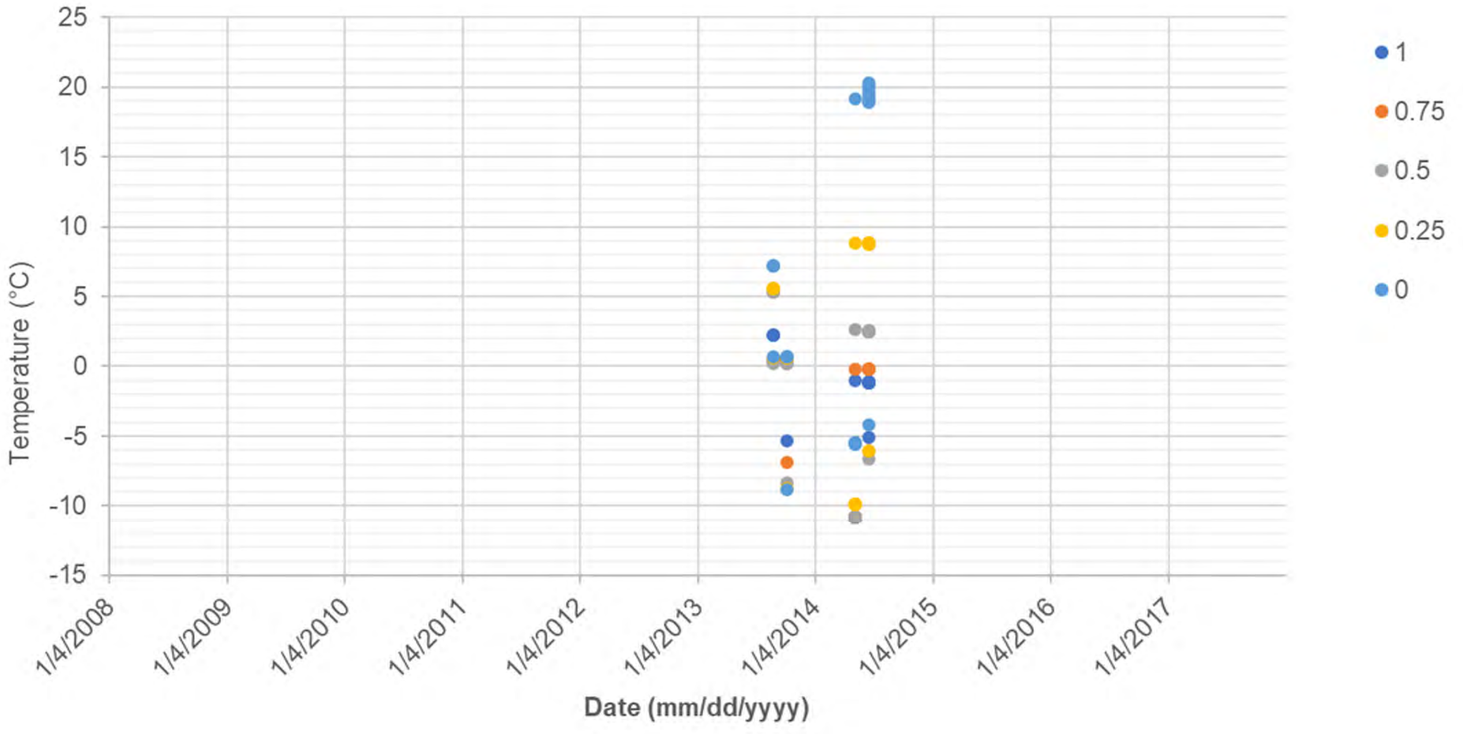

Temperature (°C)
-20
-15
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
2/25/2015 12:00

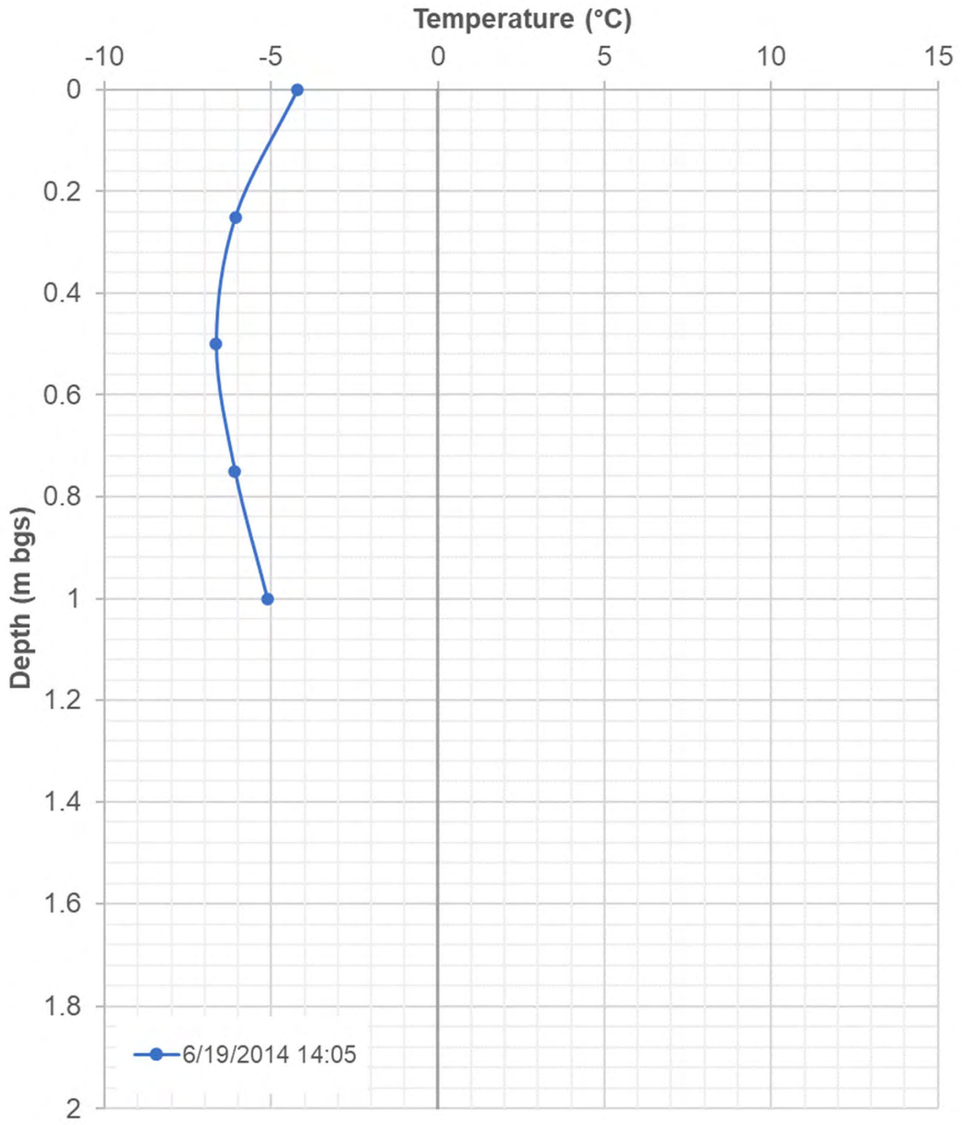
GAS-GT13-04


Temperature (°C)
4
2
0
-2
-4
-6
-8
-10
-12
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
8
5
3
2
1
0

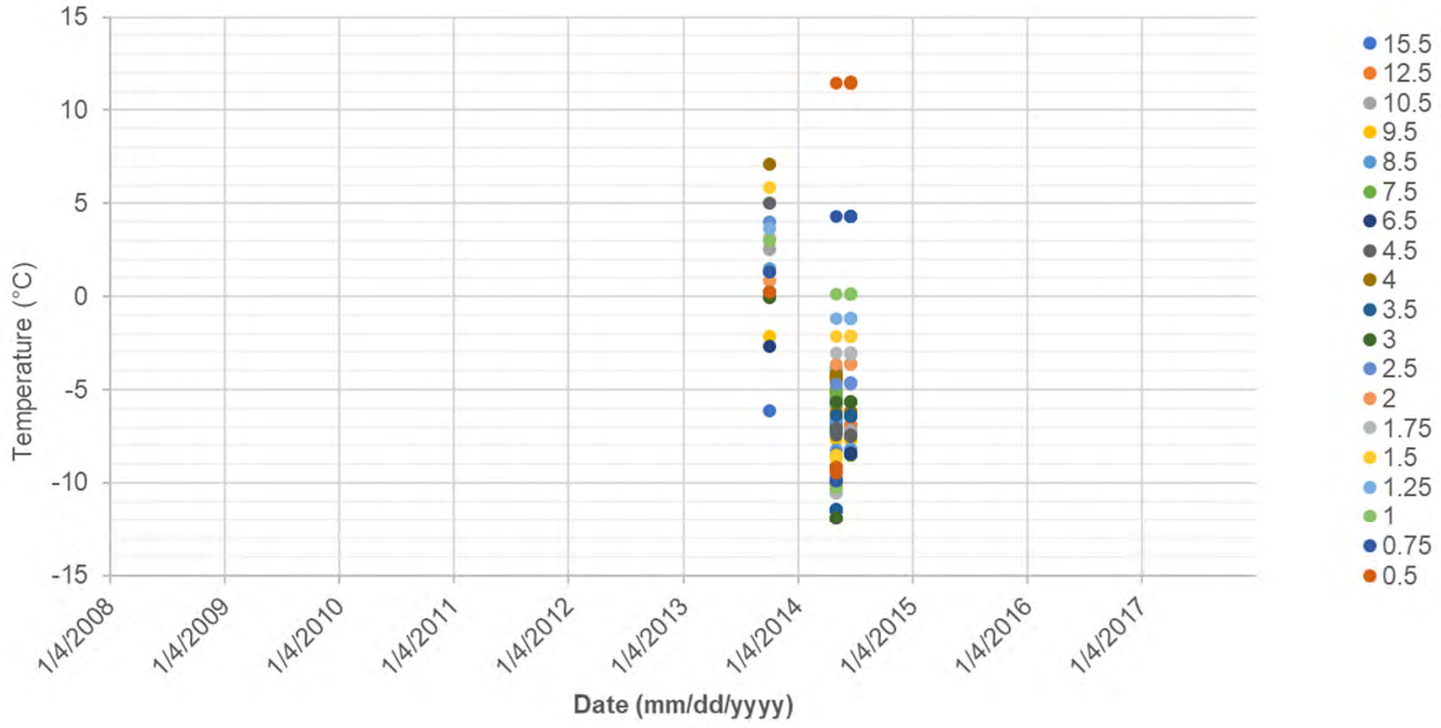

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
2
4
6
8
10
12
14
16
18
20
5/25/2013 21:40

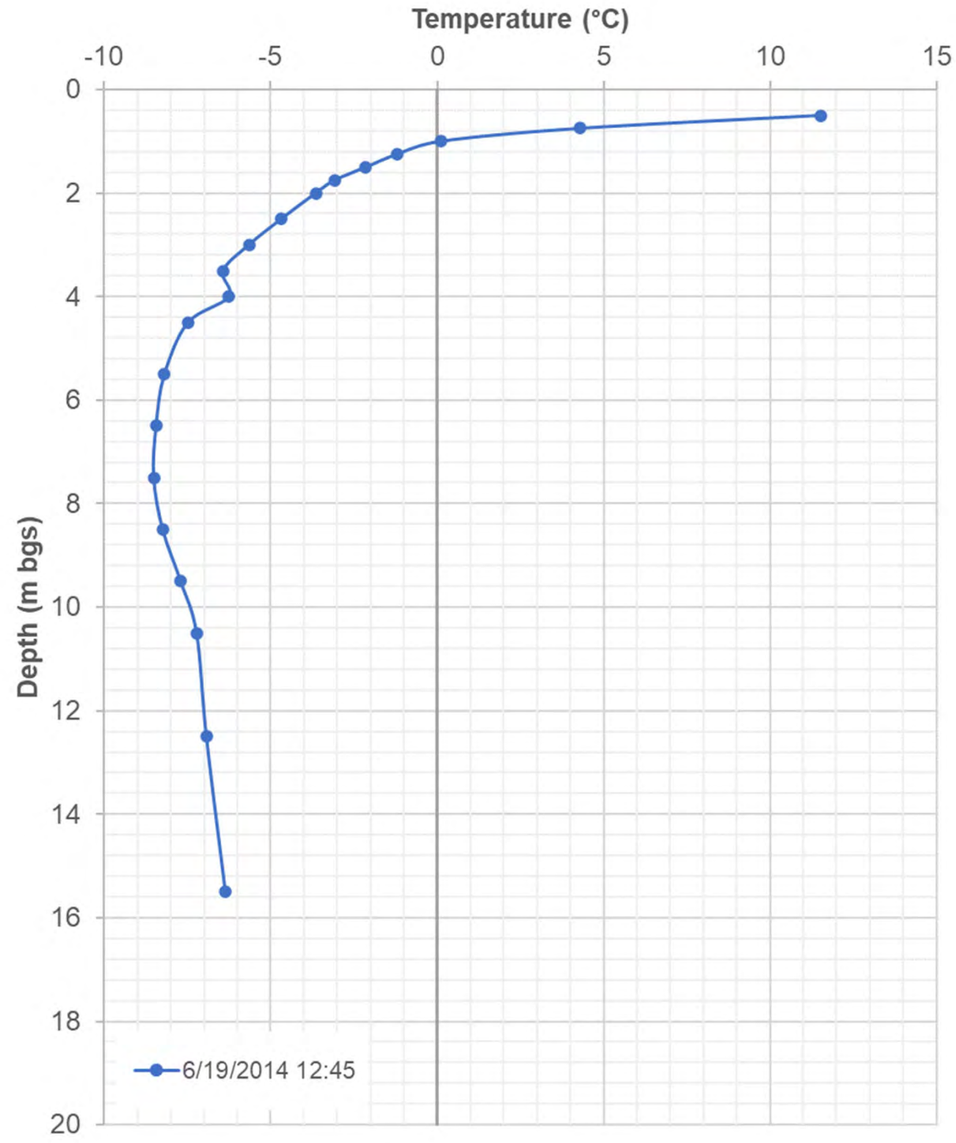
GAS-TP13-51


Temperature (°C)
25
20
15
10
5
0
-5
-10
-15
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
1
0.75
0.5
0.25
0

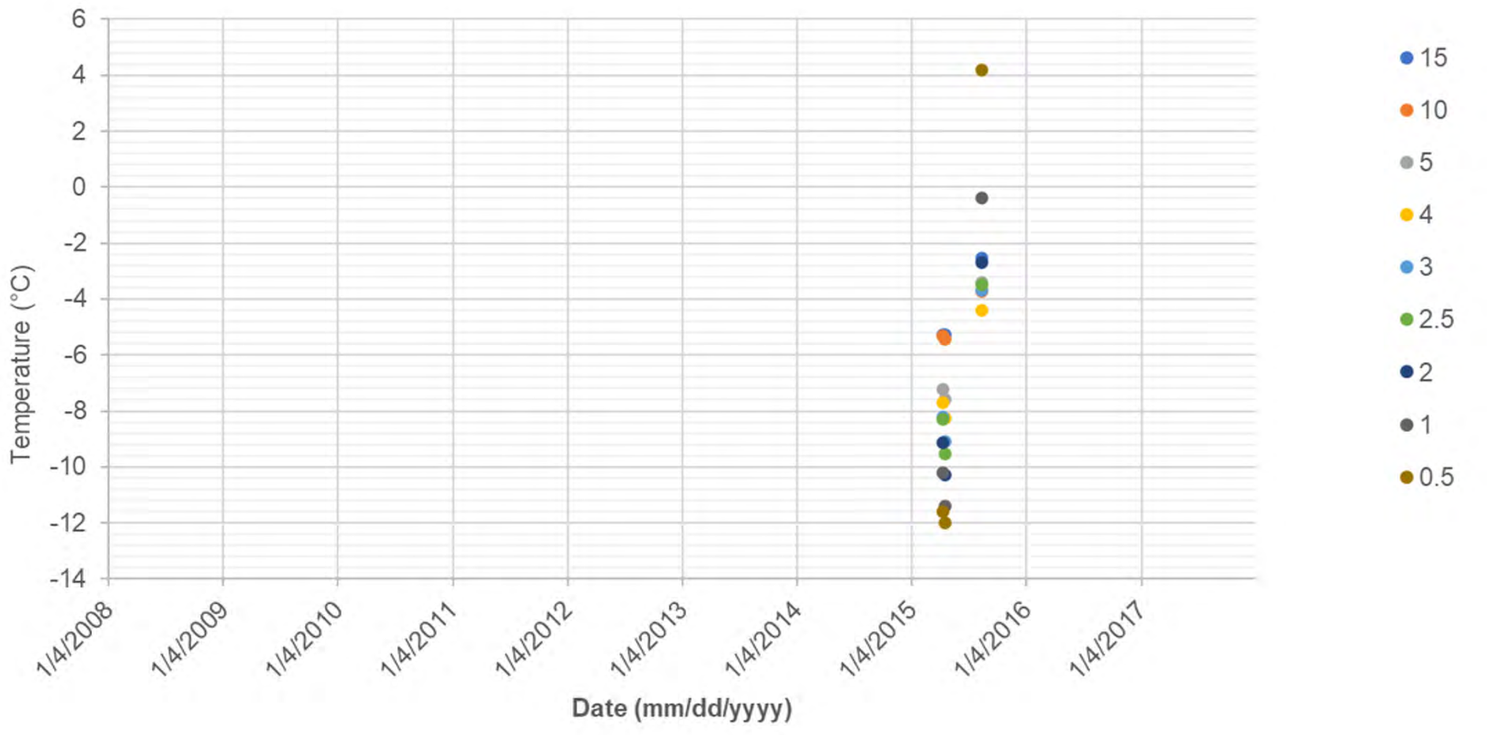

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
6/19/2014 14:05

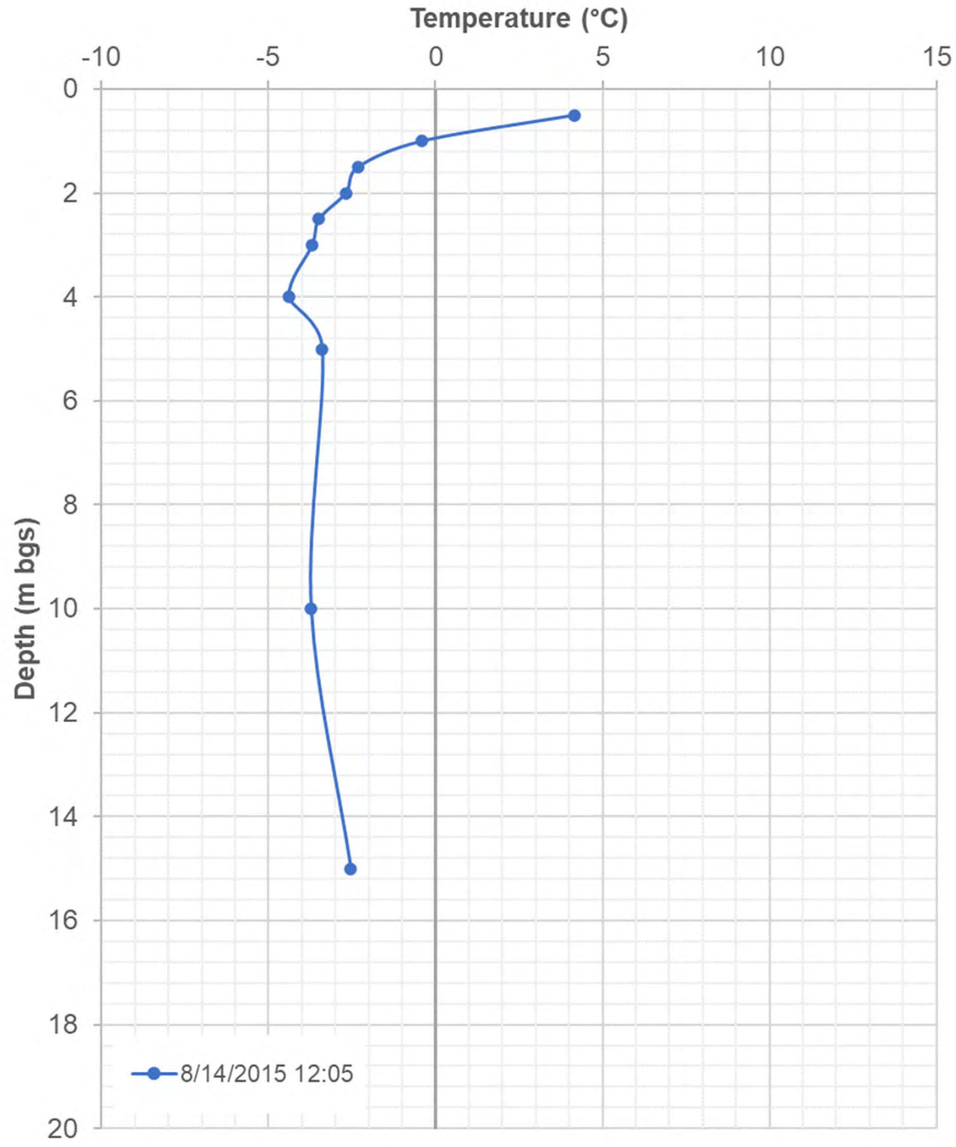
GPS-TP13-01


Temperature (°C)
15
10
5
0
-5
-10
-15
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
12.5
10.5
9.5
8.5
7.5
6.5
4.5
4
3.5
3
2.5
2
1.75
1.5
1.25
1
0.75
0.5

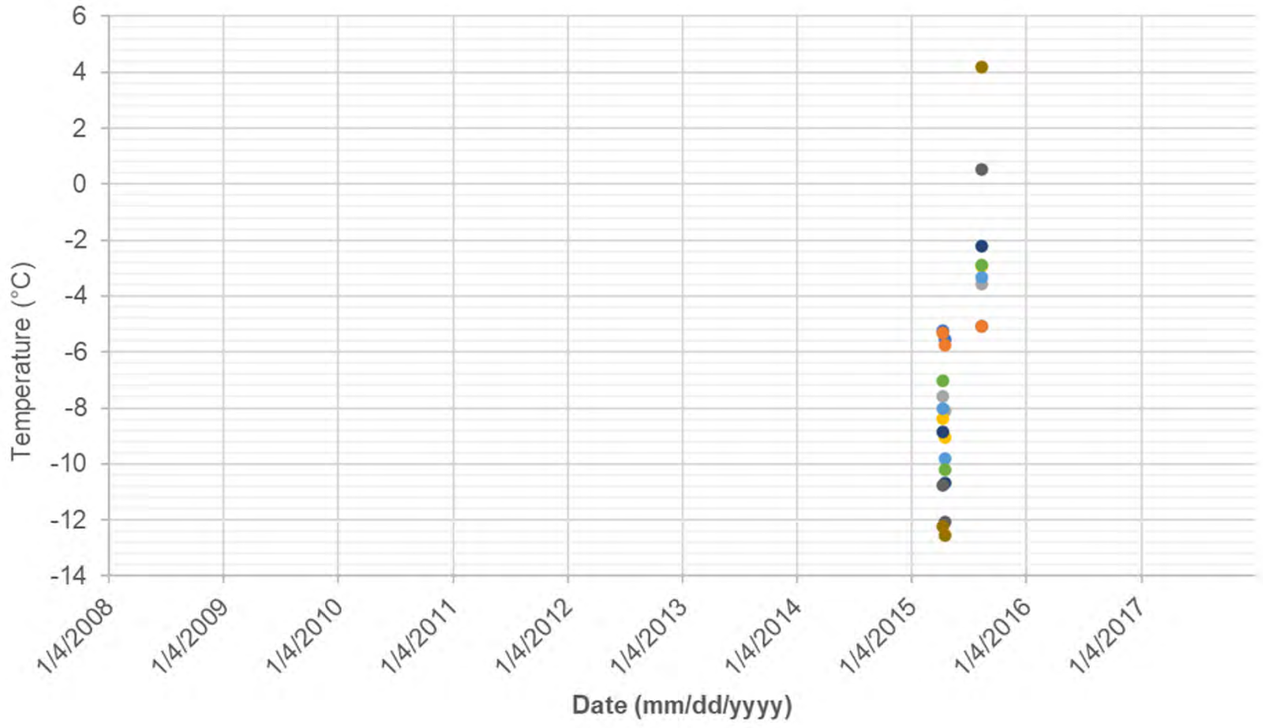

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
6/19/2014 12:45

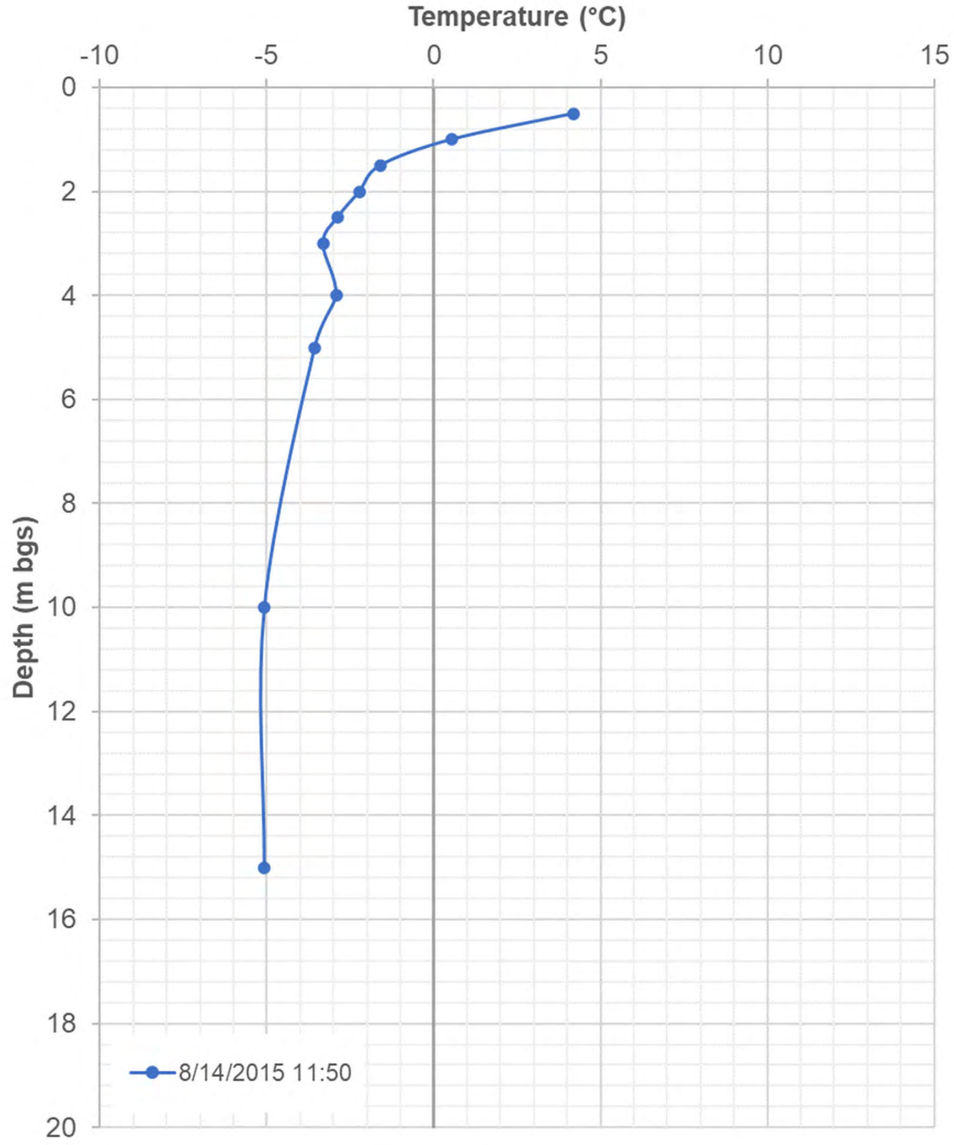
15-DH12


Temperature (°C)
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

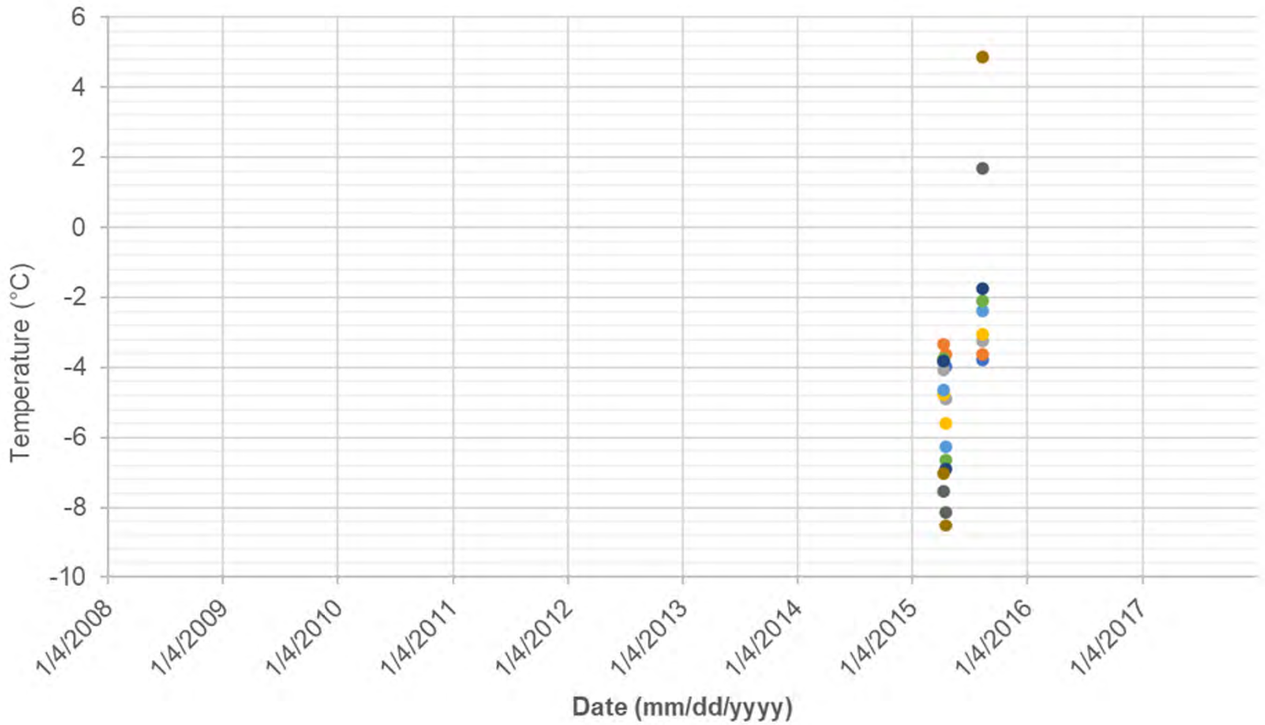

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 12:05

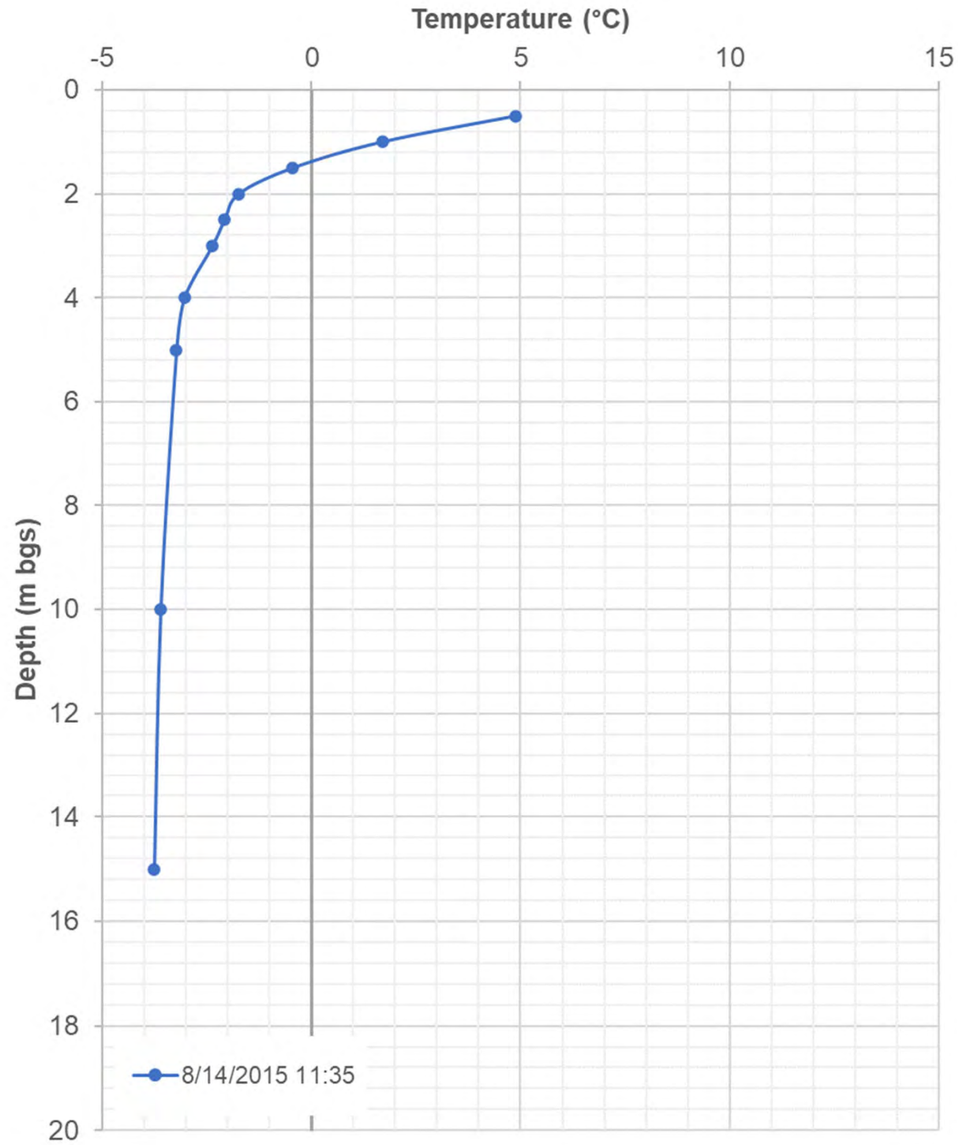
15-DH13


Temperature (°C)
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

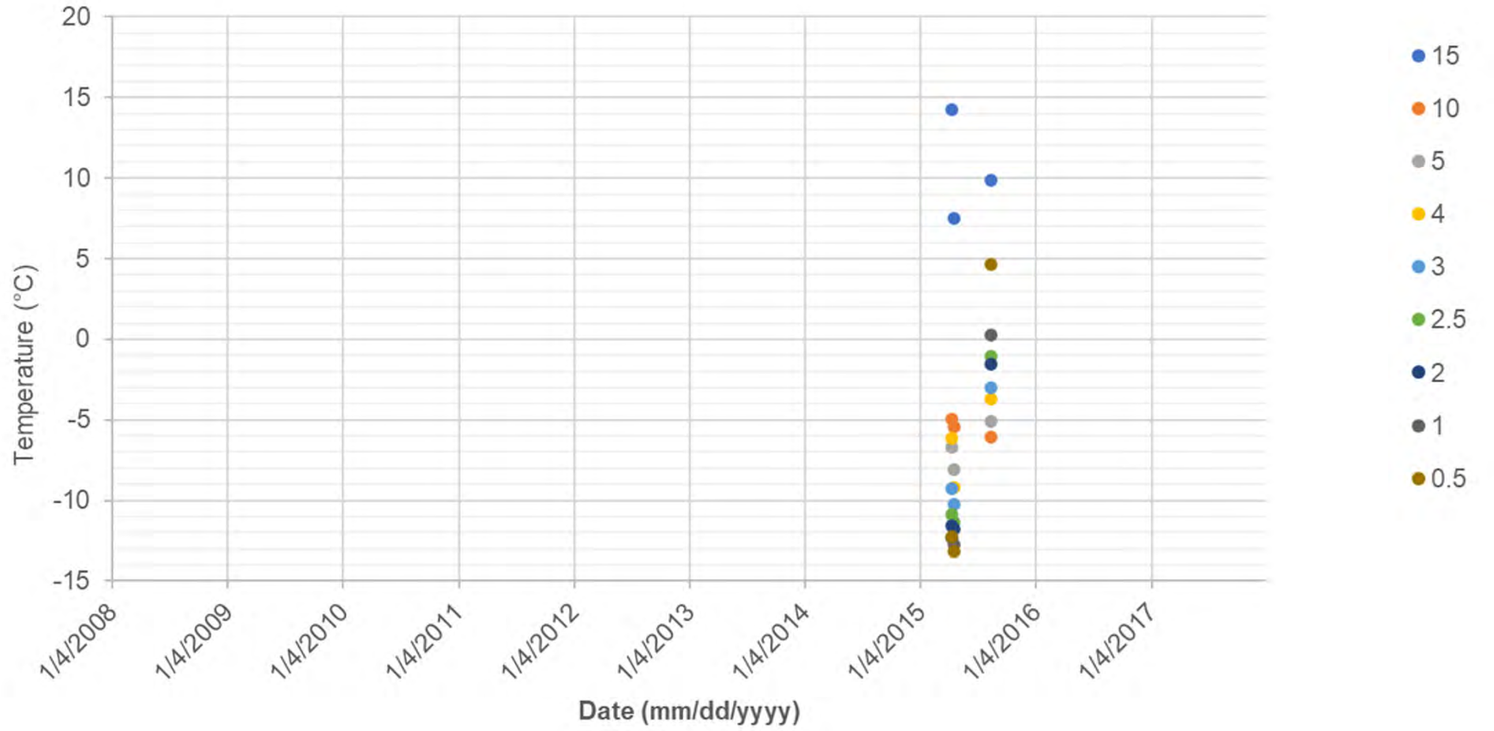

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:50

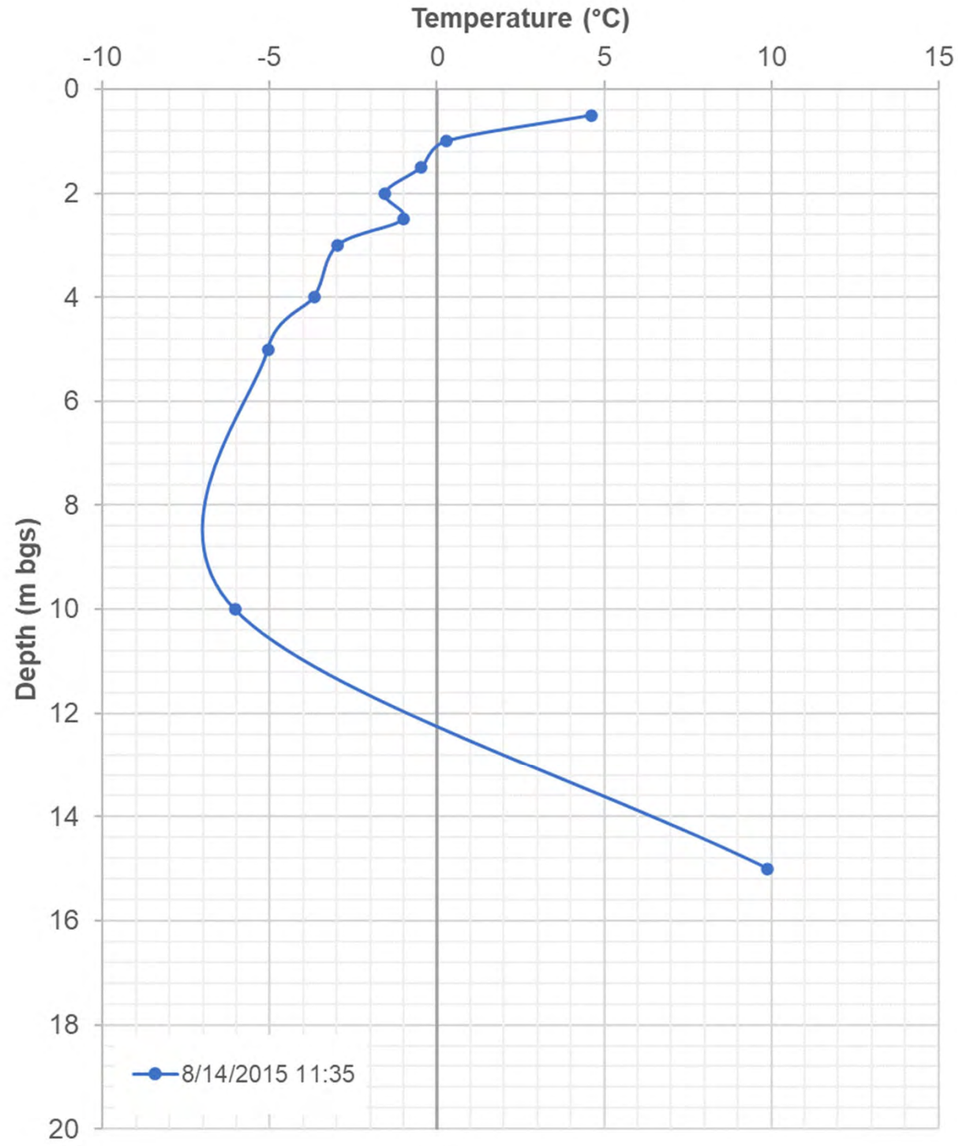
15-DH15


6
4
2
0
-2
-4
-6
-8
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

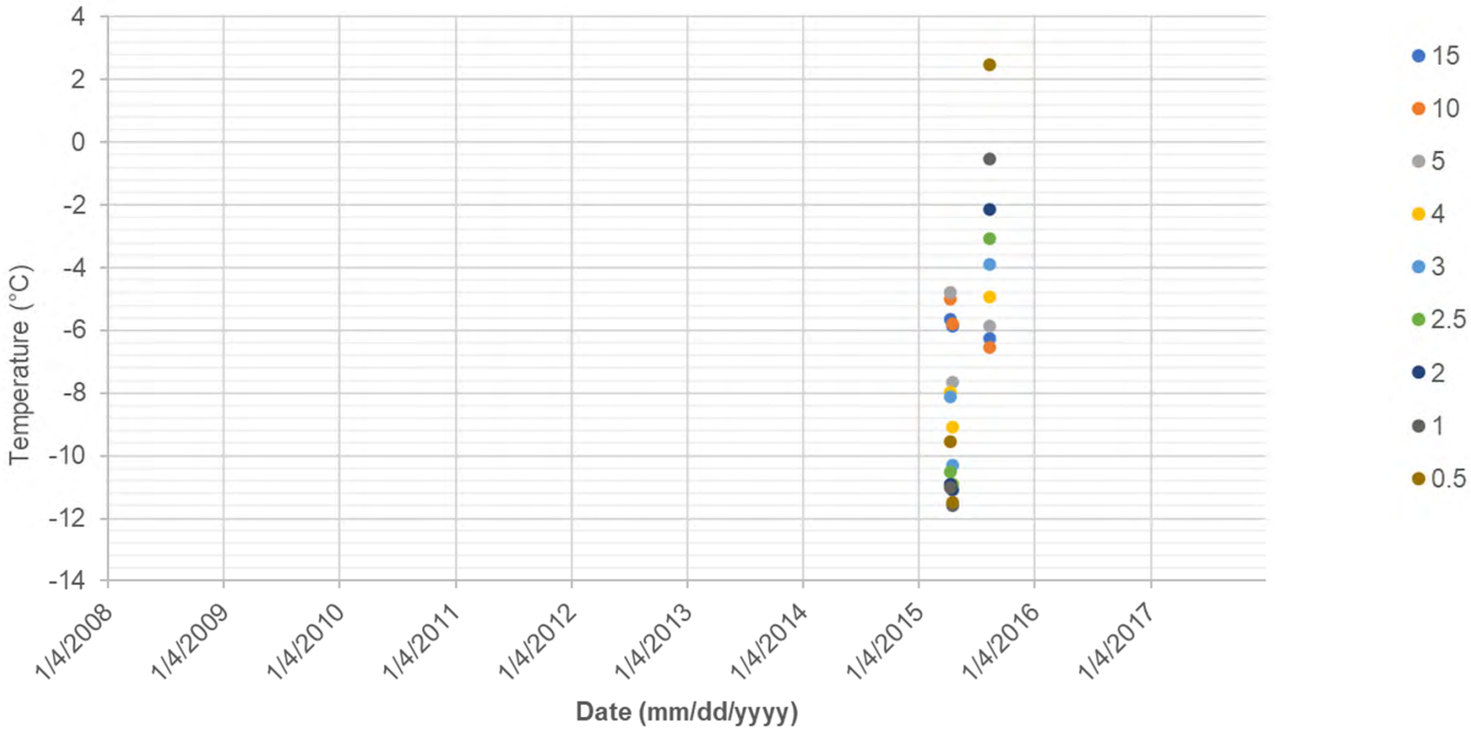

Temperature (°C)
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:35

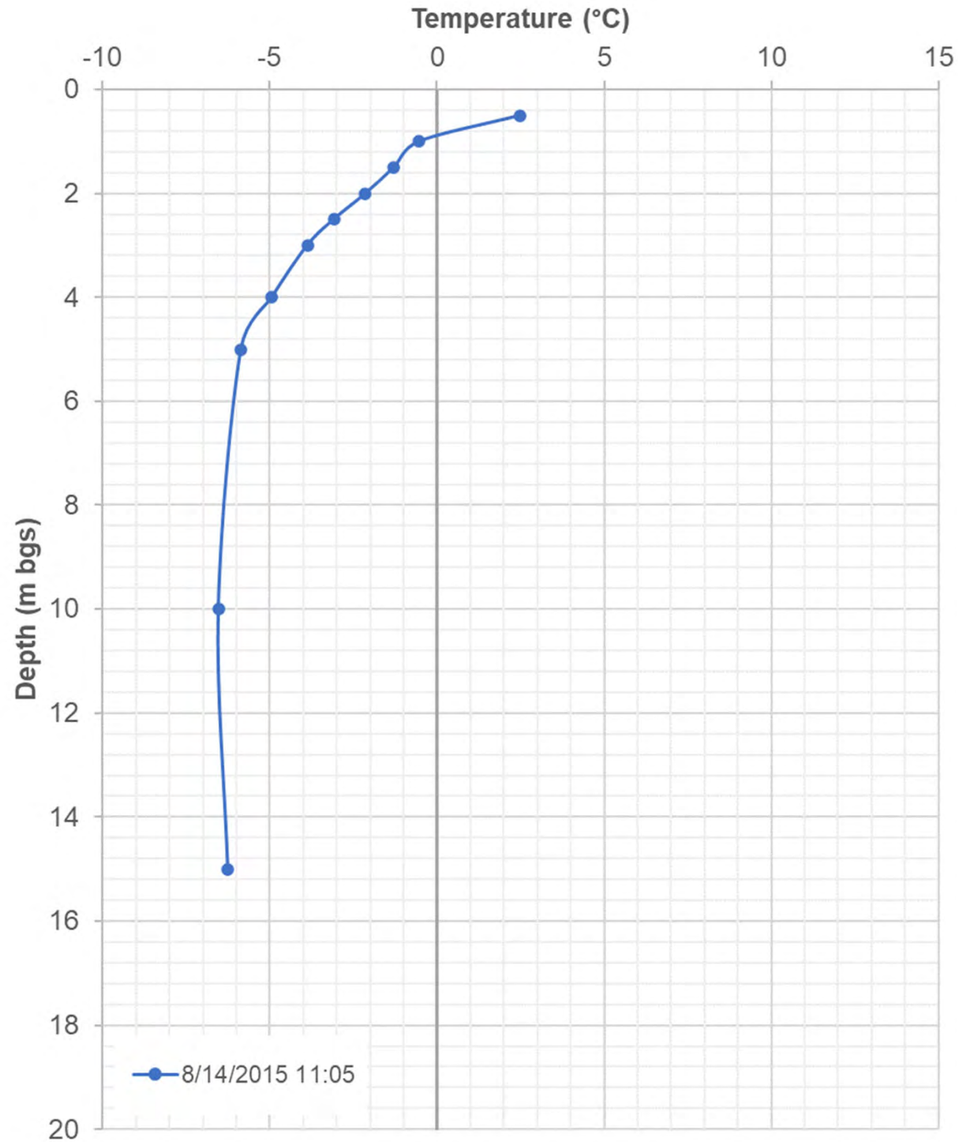
15-DH16


20
15
10
5
0
-5
-10
-15
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

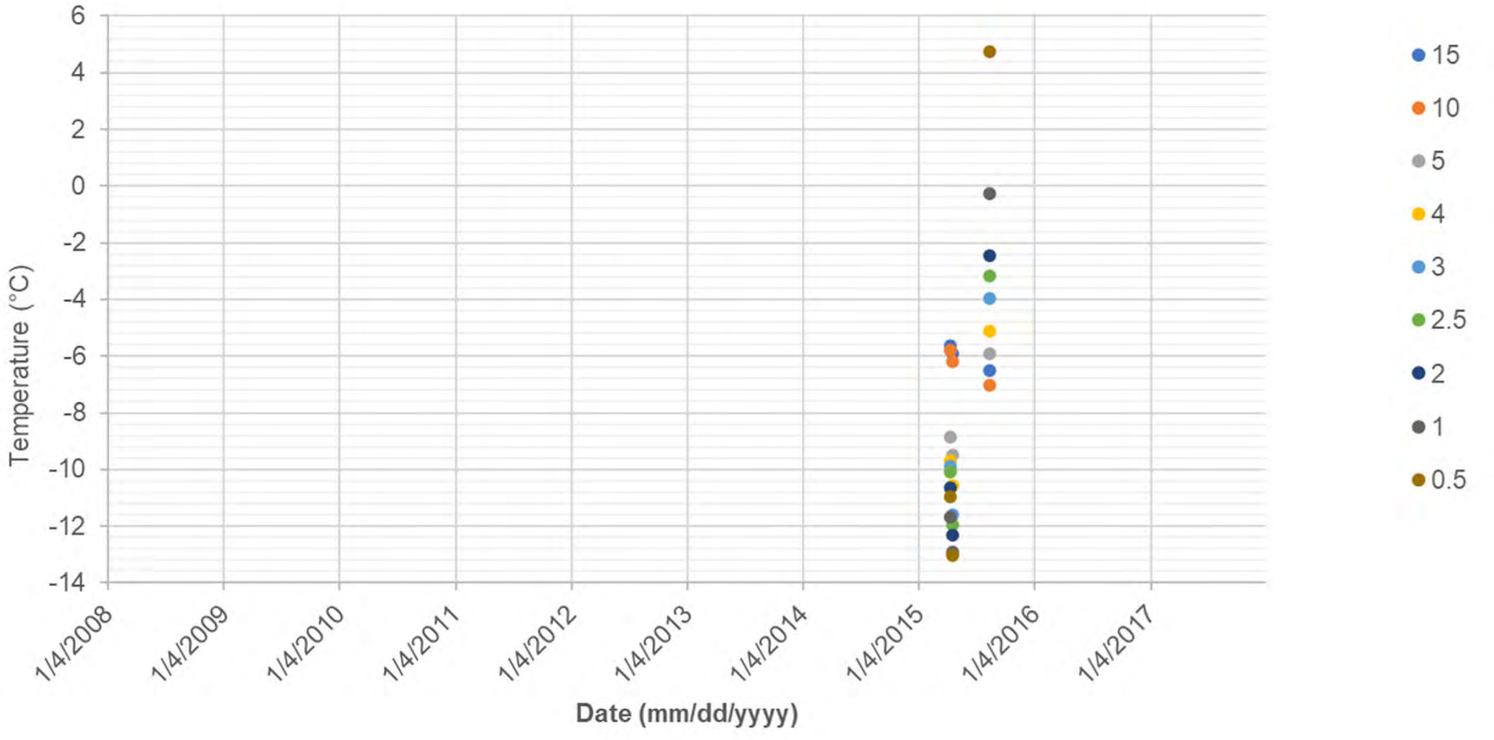

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:35

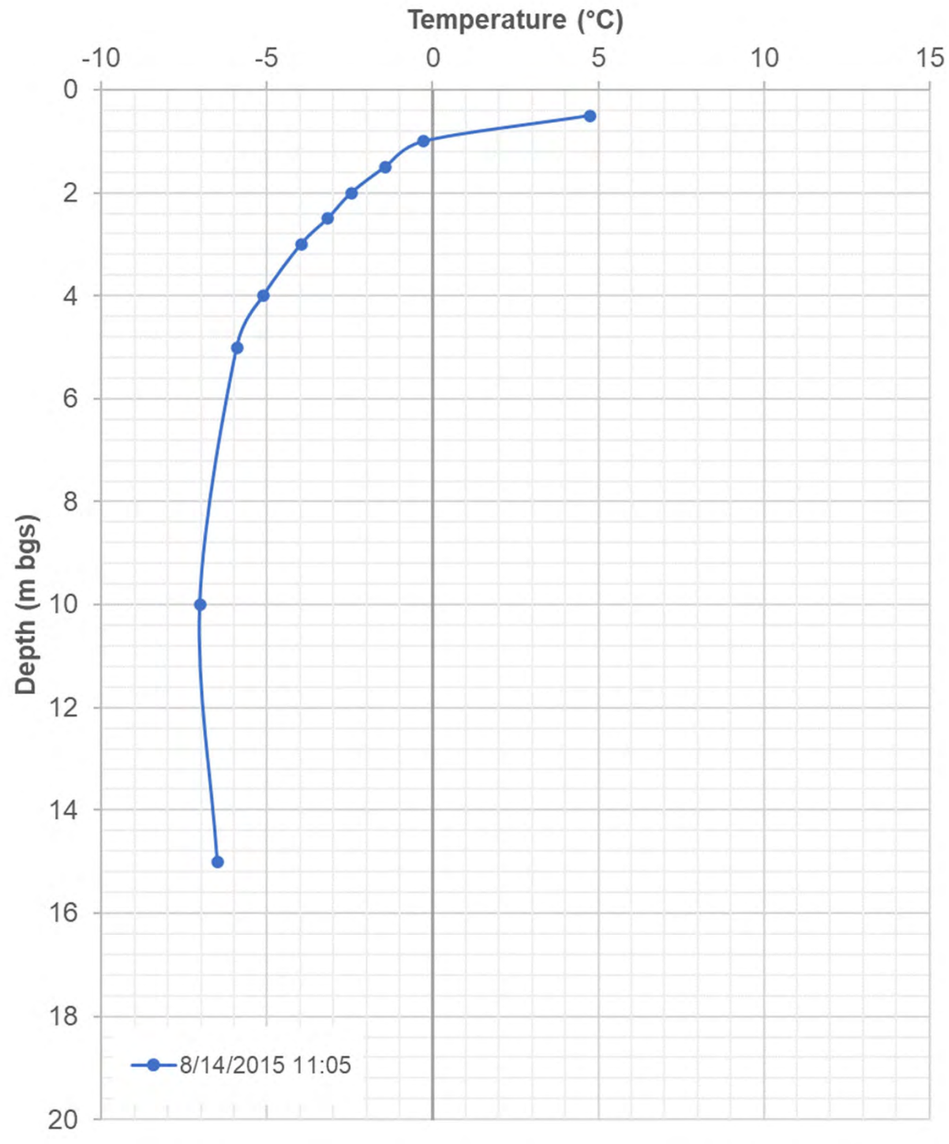
15-DH17


Temperature (°C)
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

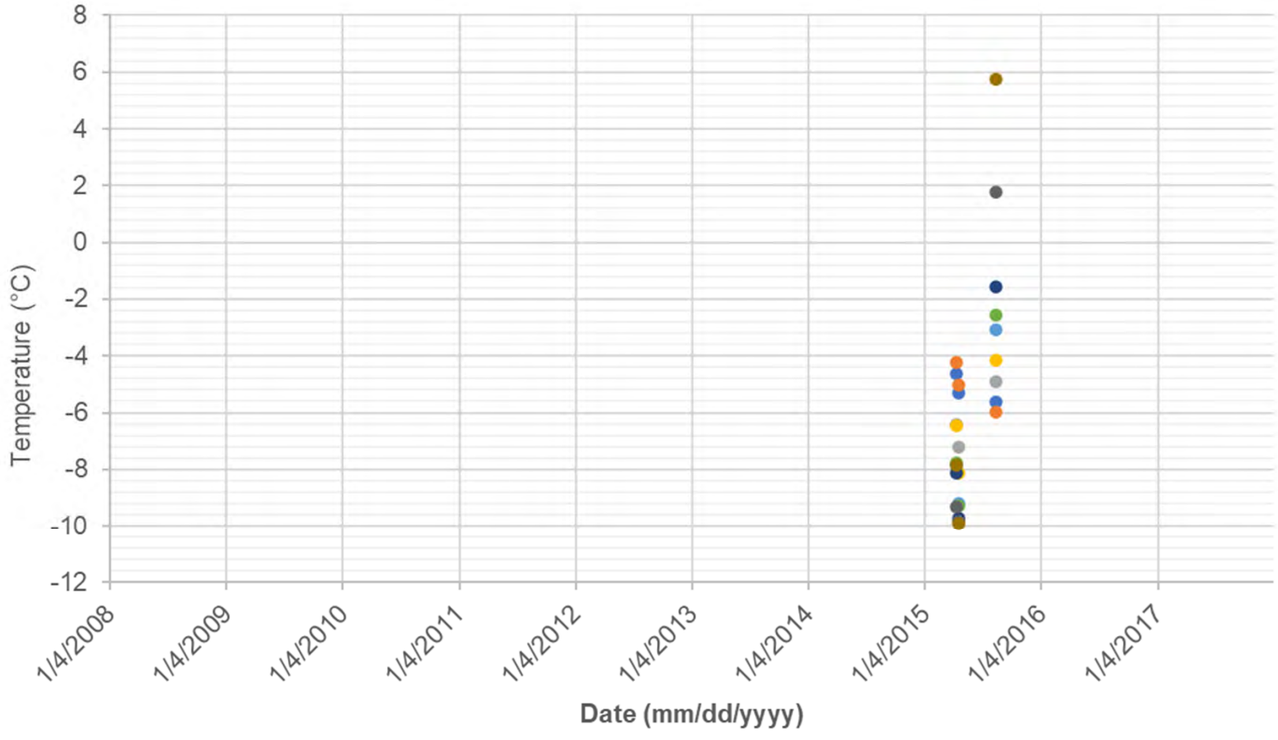

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:05

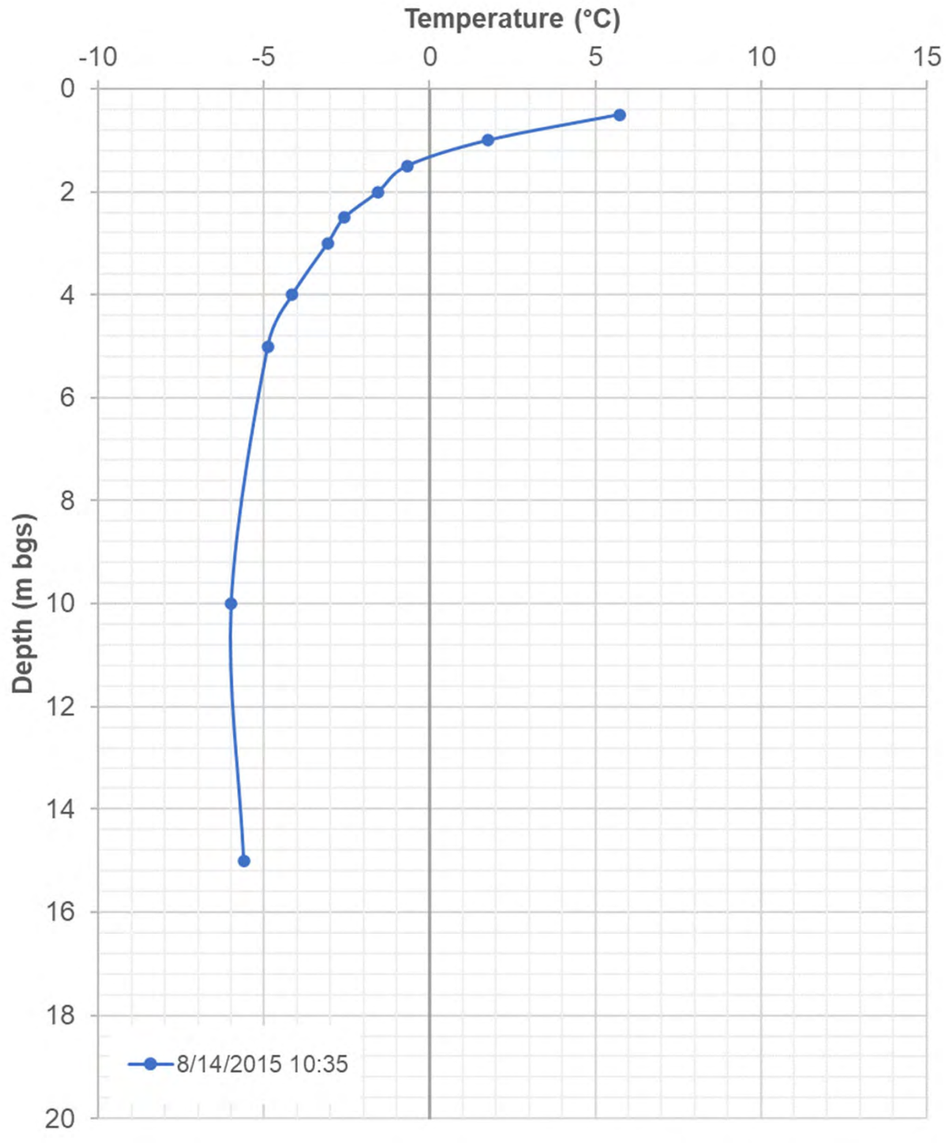
15-DH18


6
4
2
0
-2
-4
-6
-8
-10
-12
-14
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

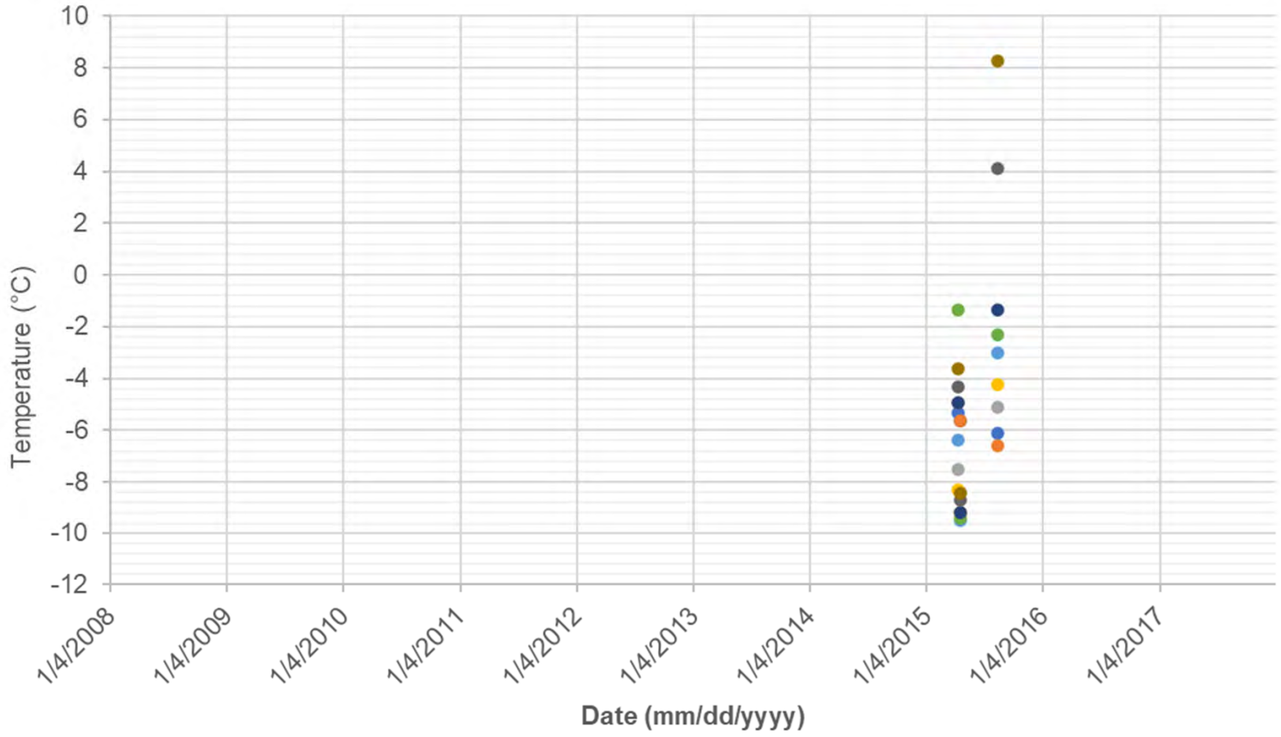

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:05

15-DH19

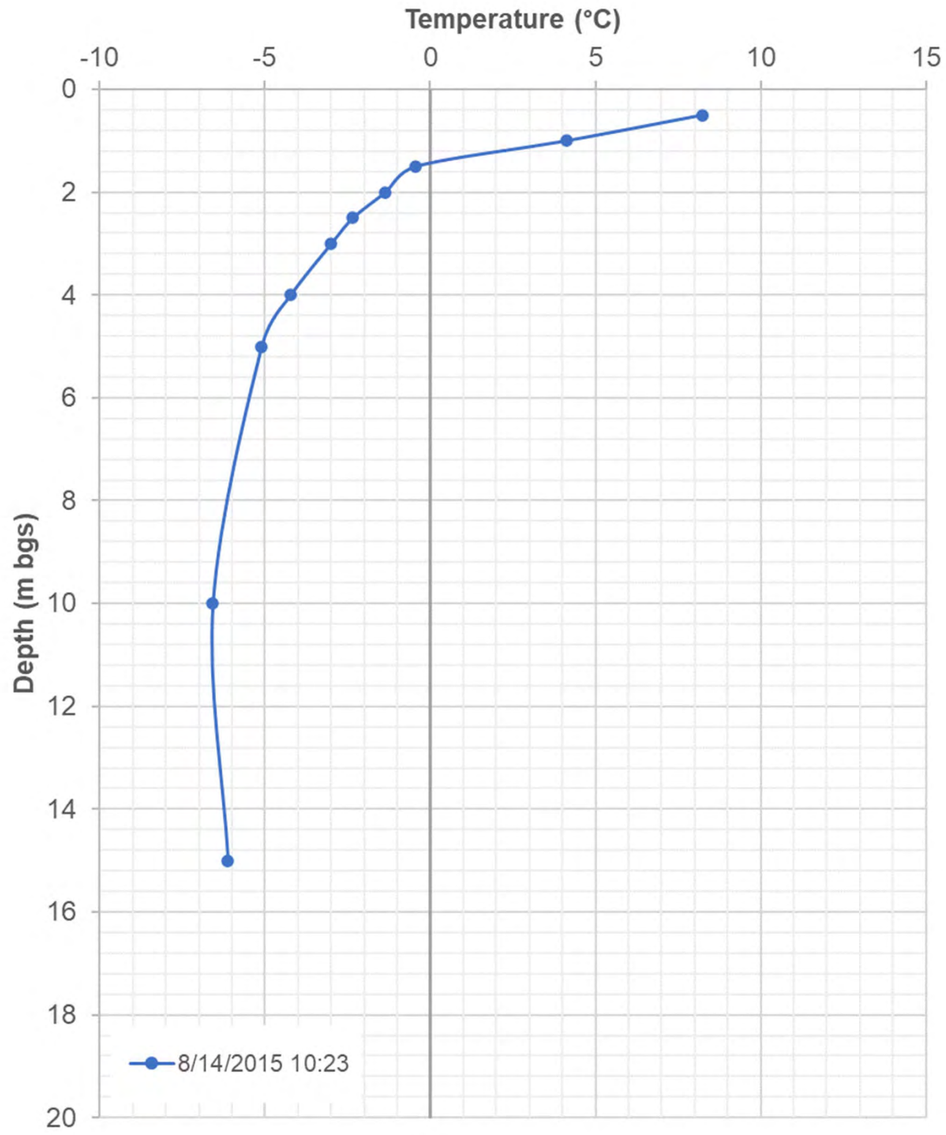

8
6
4
2
0
-2
-4
-6
-8
-10
-12
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5


Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:35

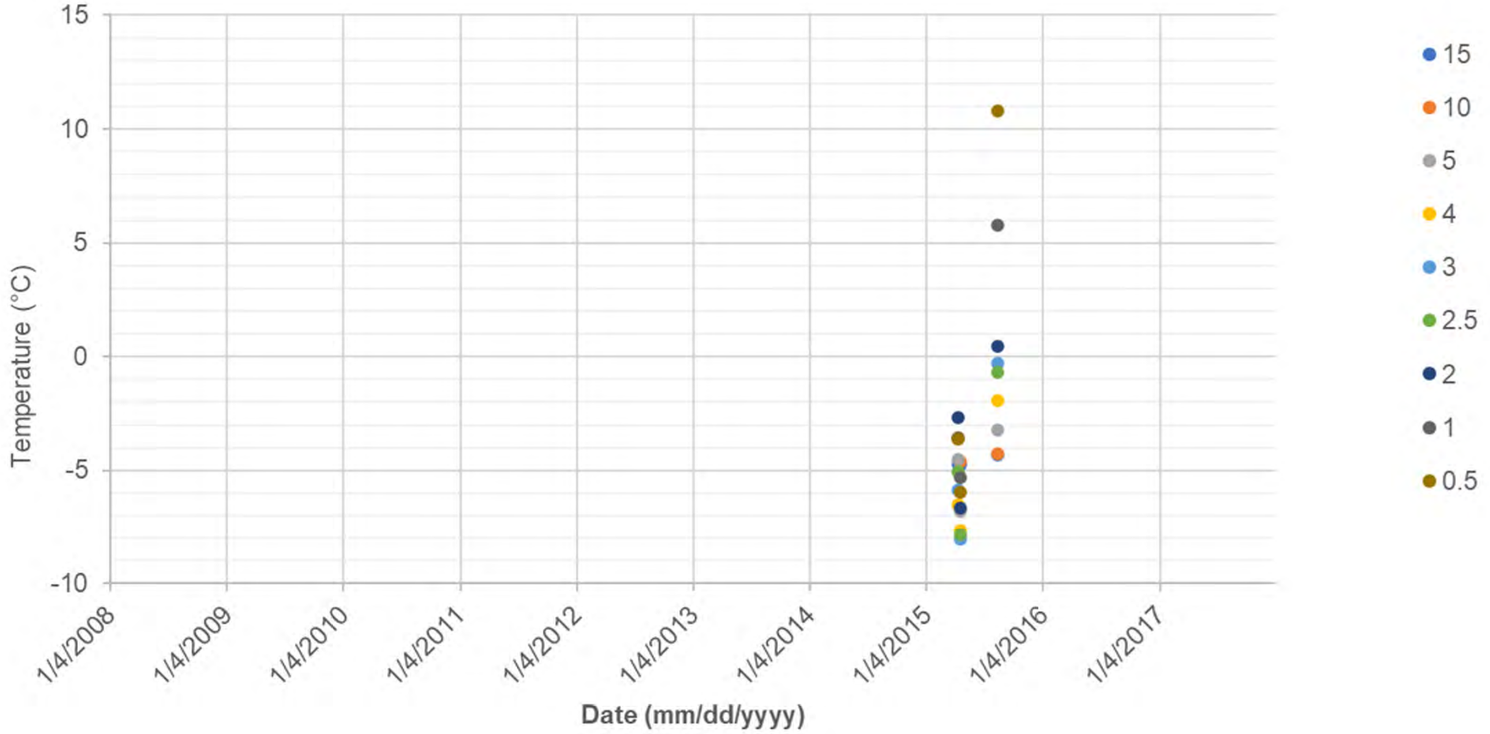
15-DH20

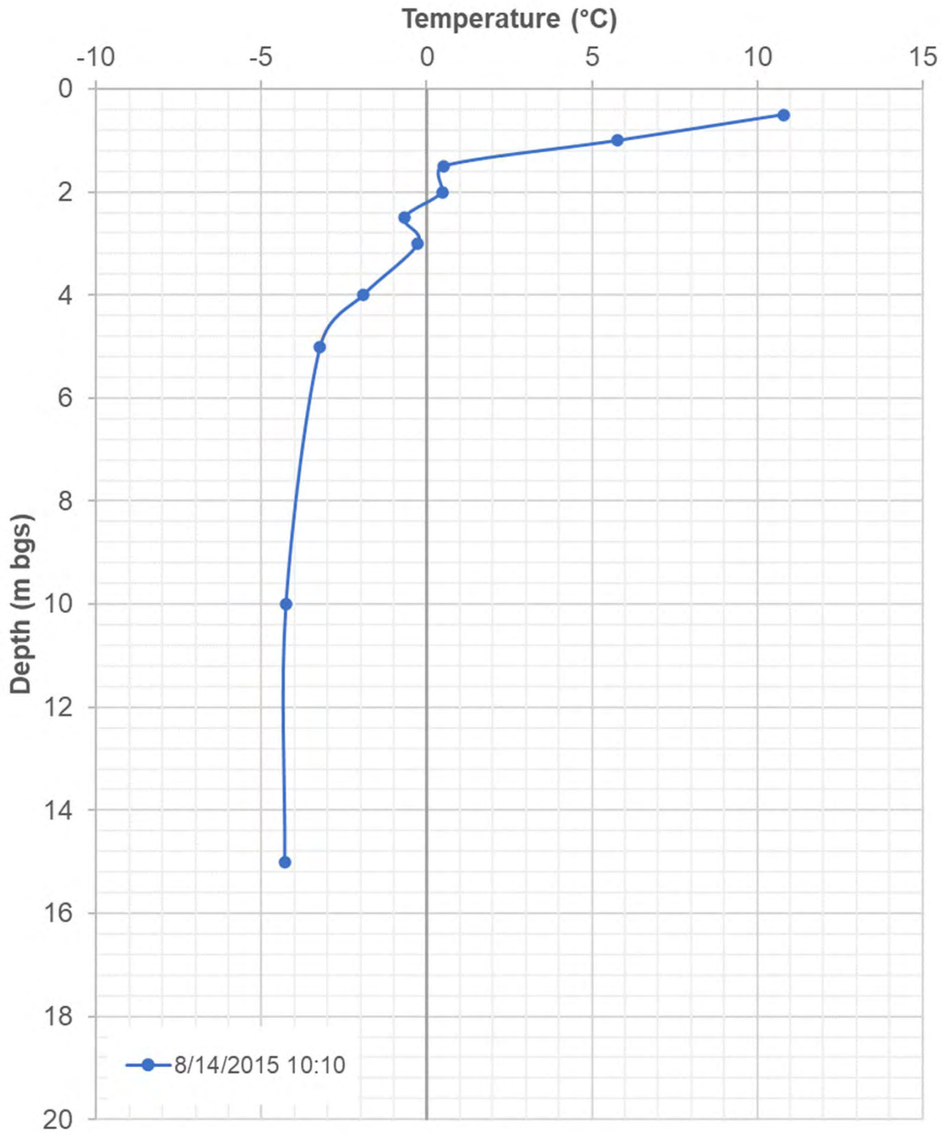

10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


15
10
5
4
3
2.5
2
1
0.5

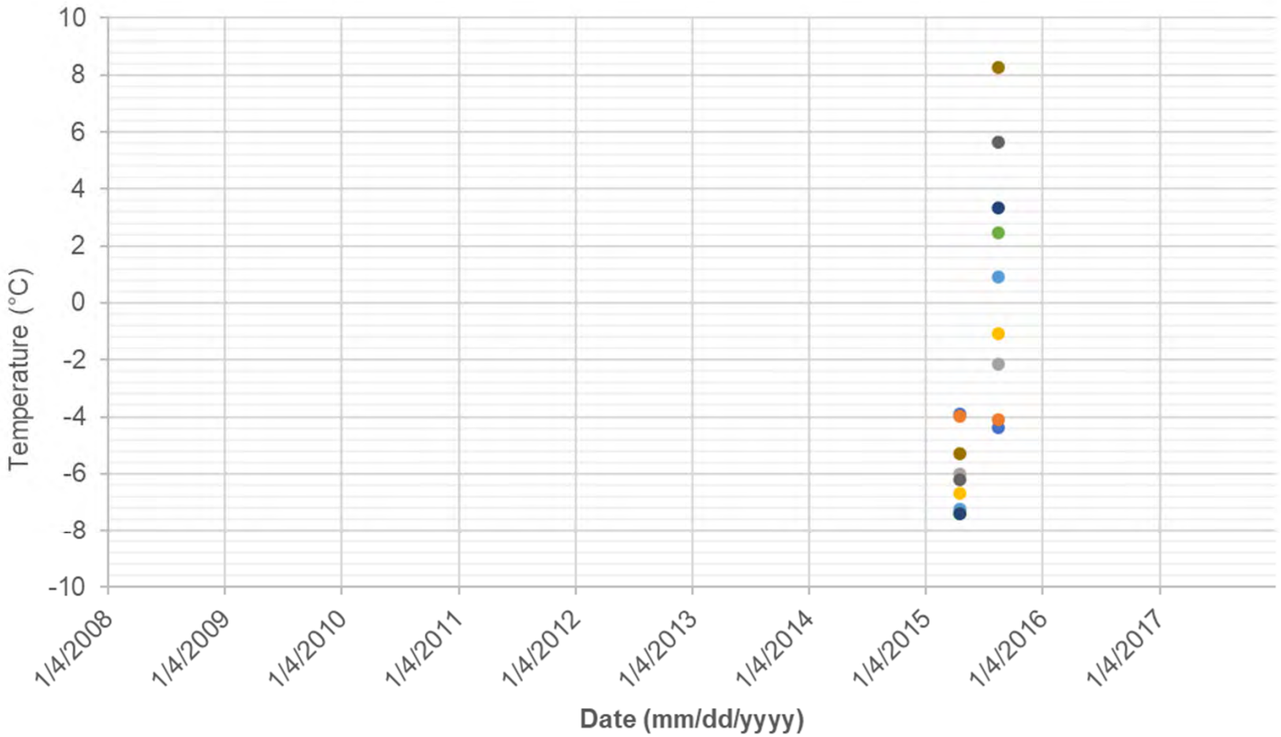

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:23

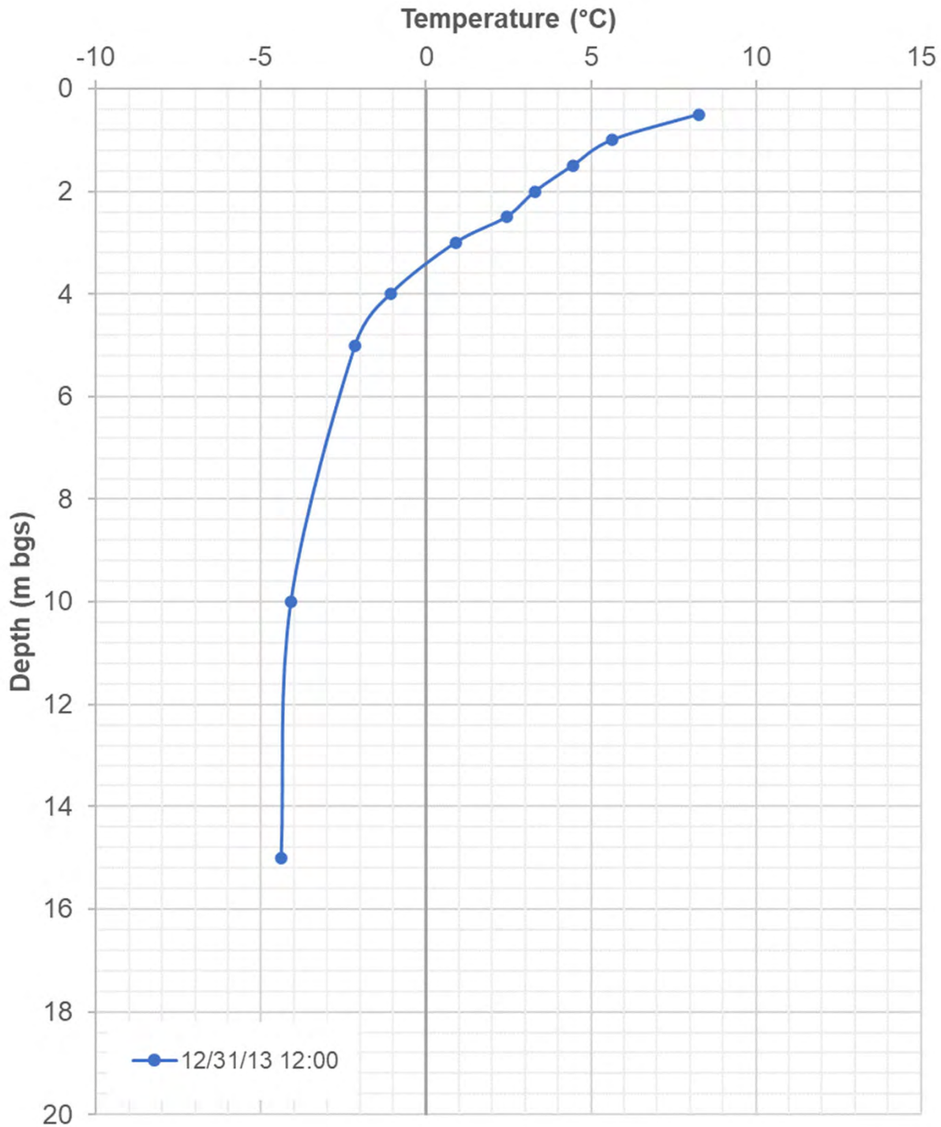
15-DH21


15
10
5
0
-5
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

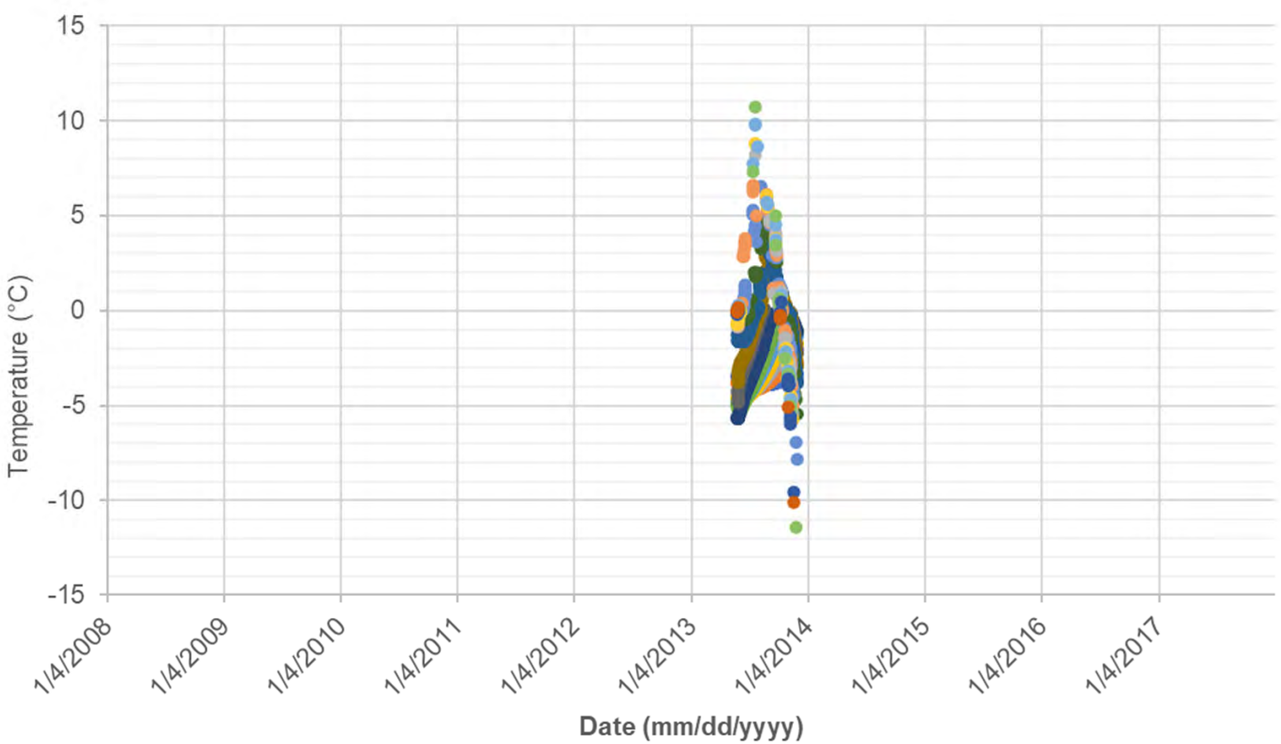

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:10

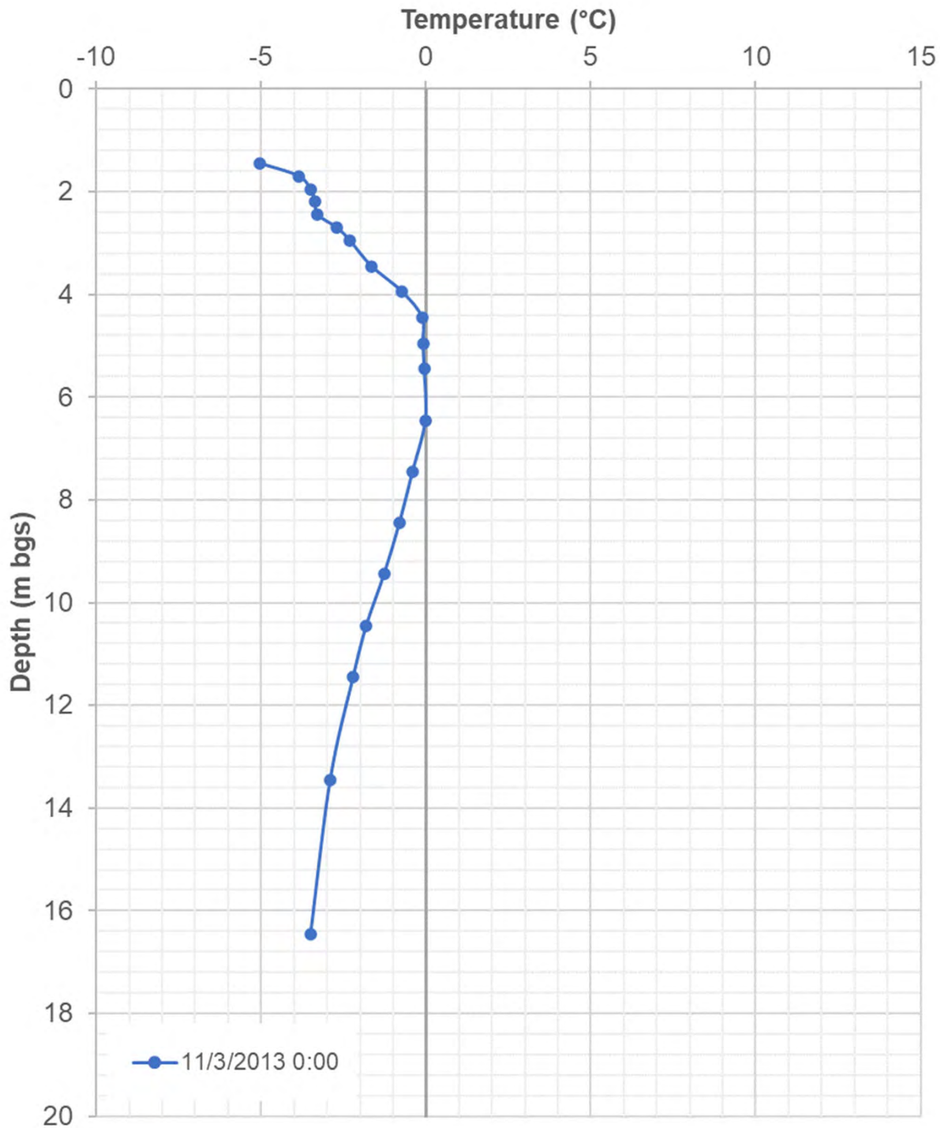
15-DH26


10
8
6
4
2
0
-2
-4
-6
-8
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

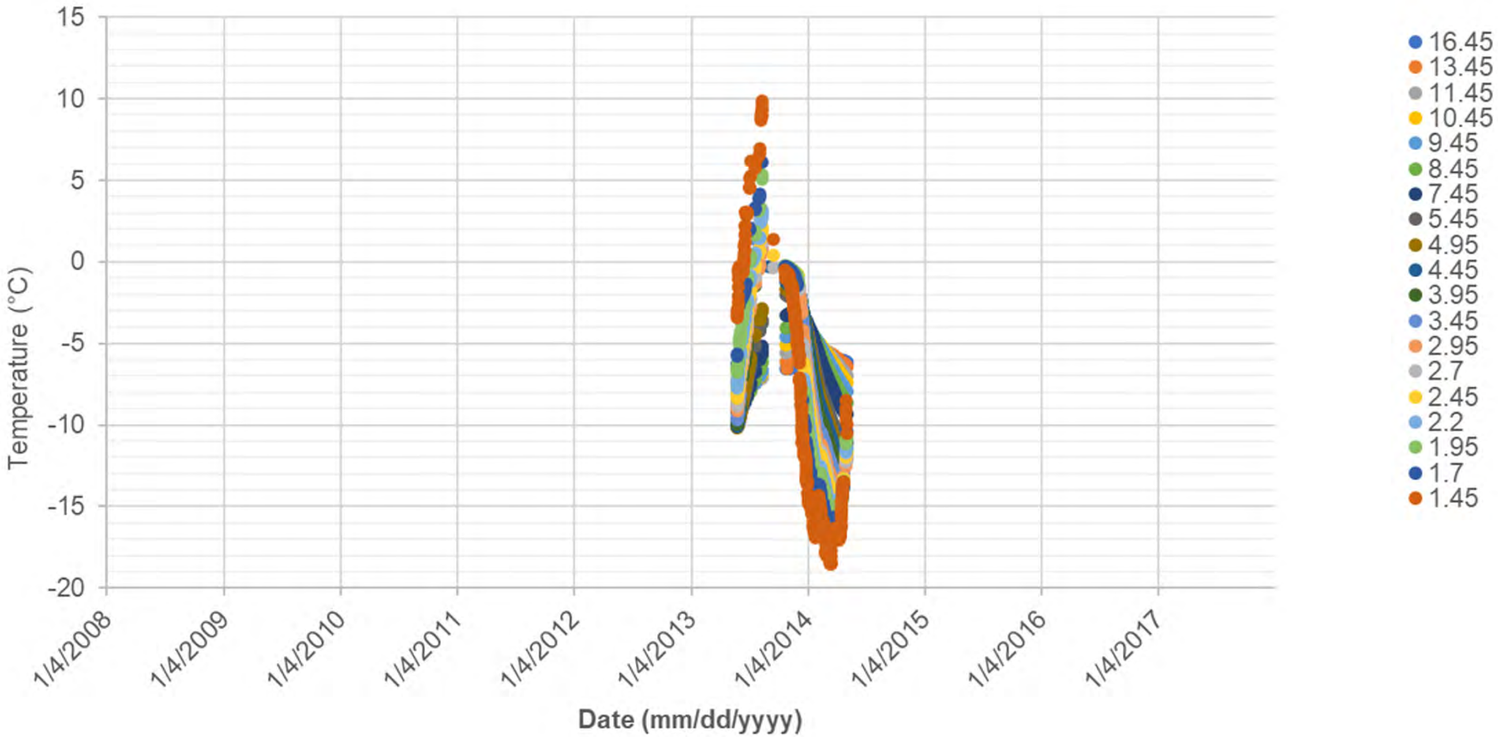

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
12/31/13 12:00

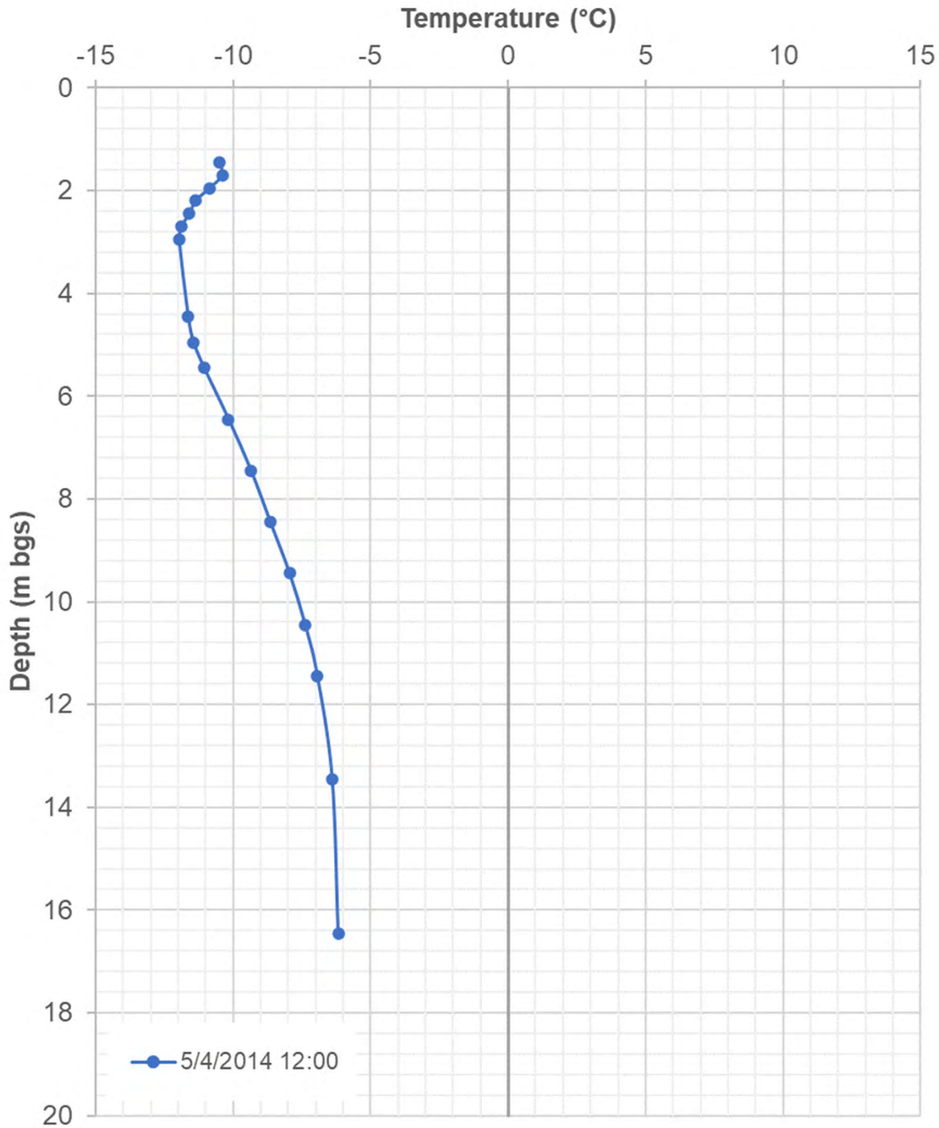
TIA-GT13-03


15
10
5
0
-5
-10
-15
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
16.45
13.45
11.45
10.45
9.45
8.45
7.45
5.45
4.95
4.45
3.95
3.45
2.95
2.7
2.45
2.2
1.95
1.7
1.45

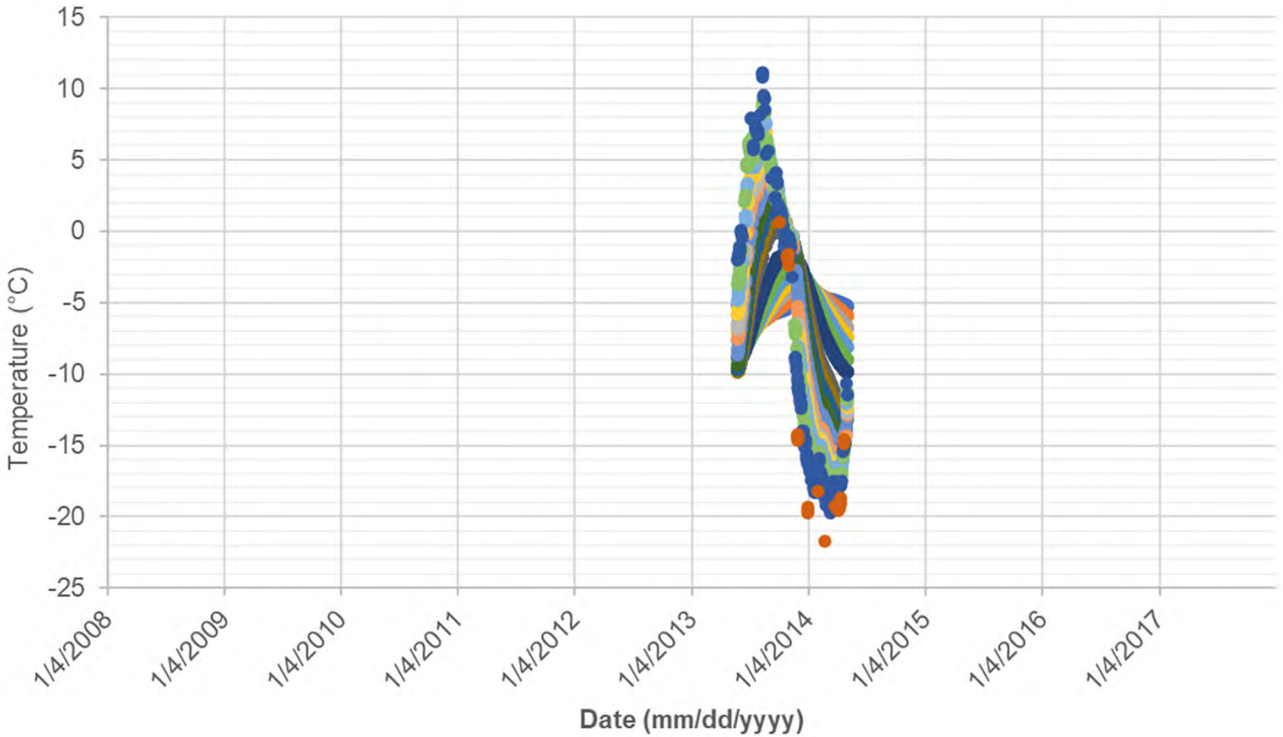

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
11/3/2013 0:00

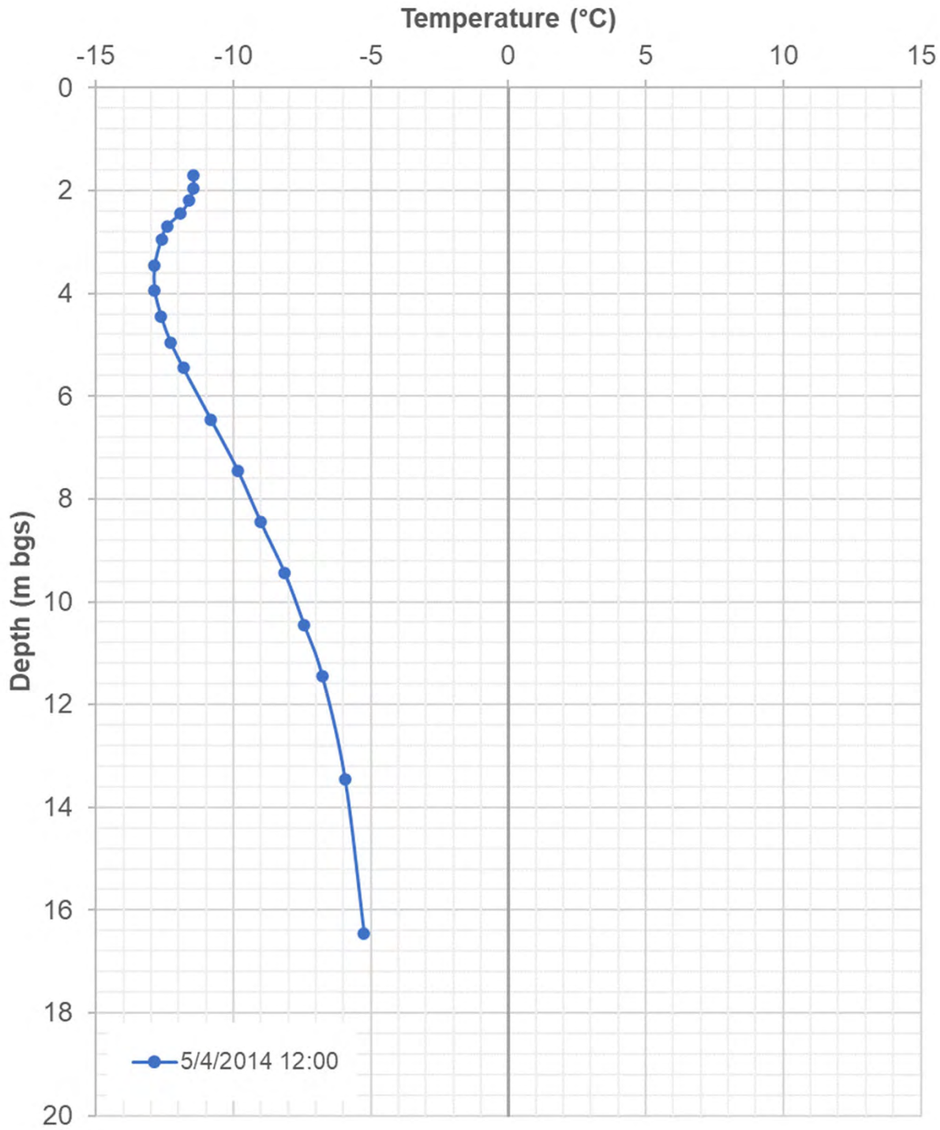
TIA-GT13-10


15
10
5
0
-5
-10
-15
-20
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
16.45
13.45
11.45
10.45
9.45
8.45
7.45
5.45
4.95
4.45
3.95
3.45
2.95
2.7
2.45
2.2
1.95
1.7
1.45


Temperature (°C)
-15
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
5/4/2014 12:00

TIA-GT13-15


15
10
5
0
-5
-10
-15
-20
-25
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
16.45
13.45
11.45
10.45
9.45
8.45
7.45
5.45
4.95
4.45
3.95
3.45
2.95
2.7
2.45
2.2
1.95
1.7
1.45


Temperature (°C)
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-5
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5
10
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2
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6
8
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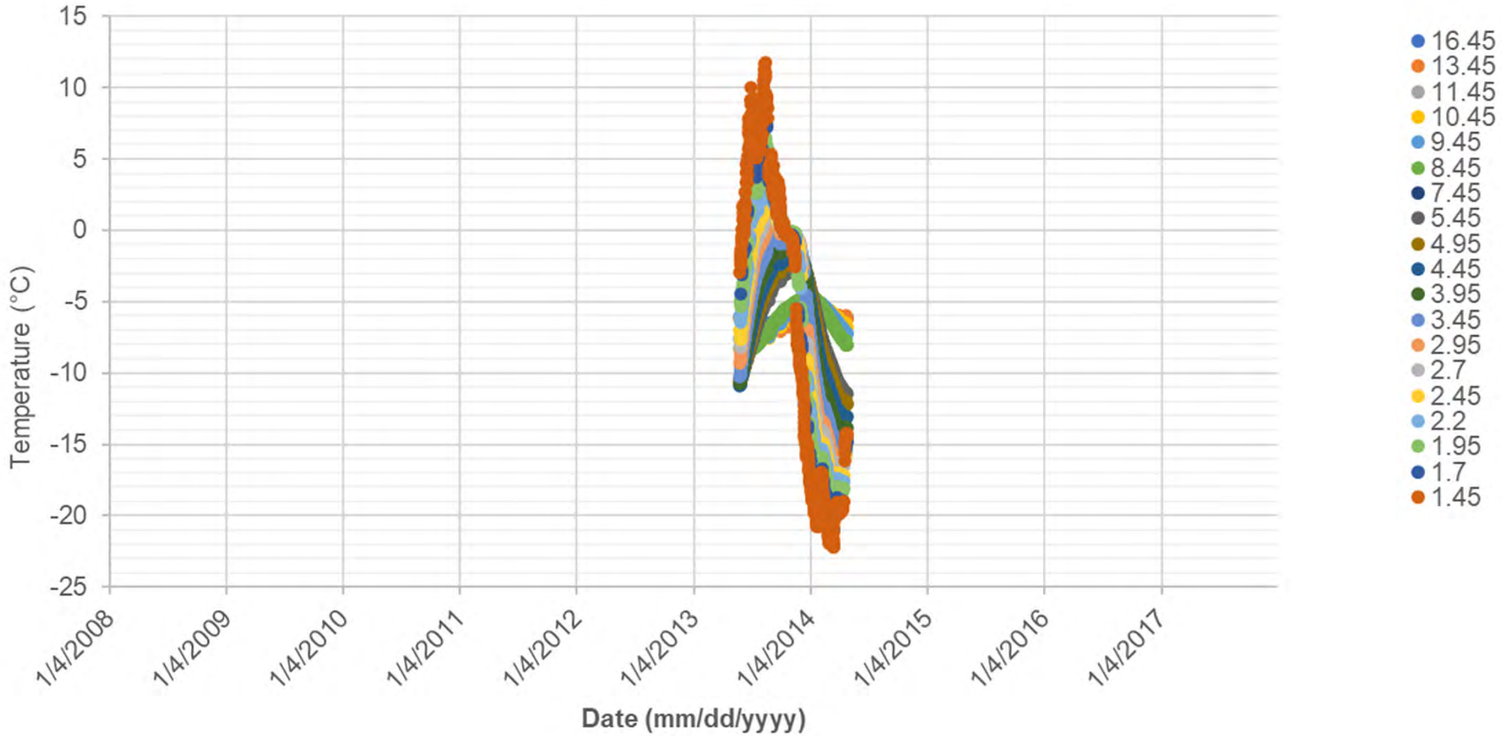
16
18
20
Depth (m bgs)
5/4/2014 12:00

TIA-GT13-16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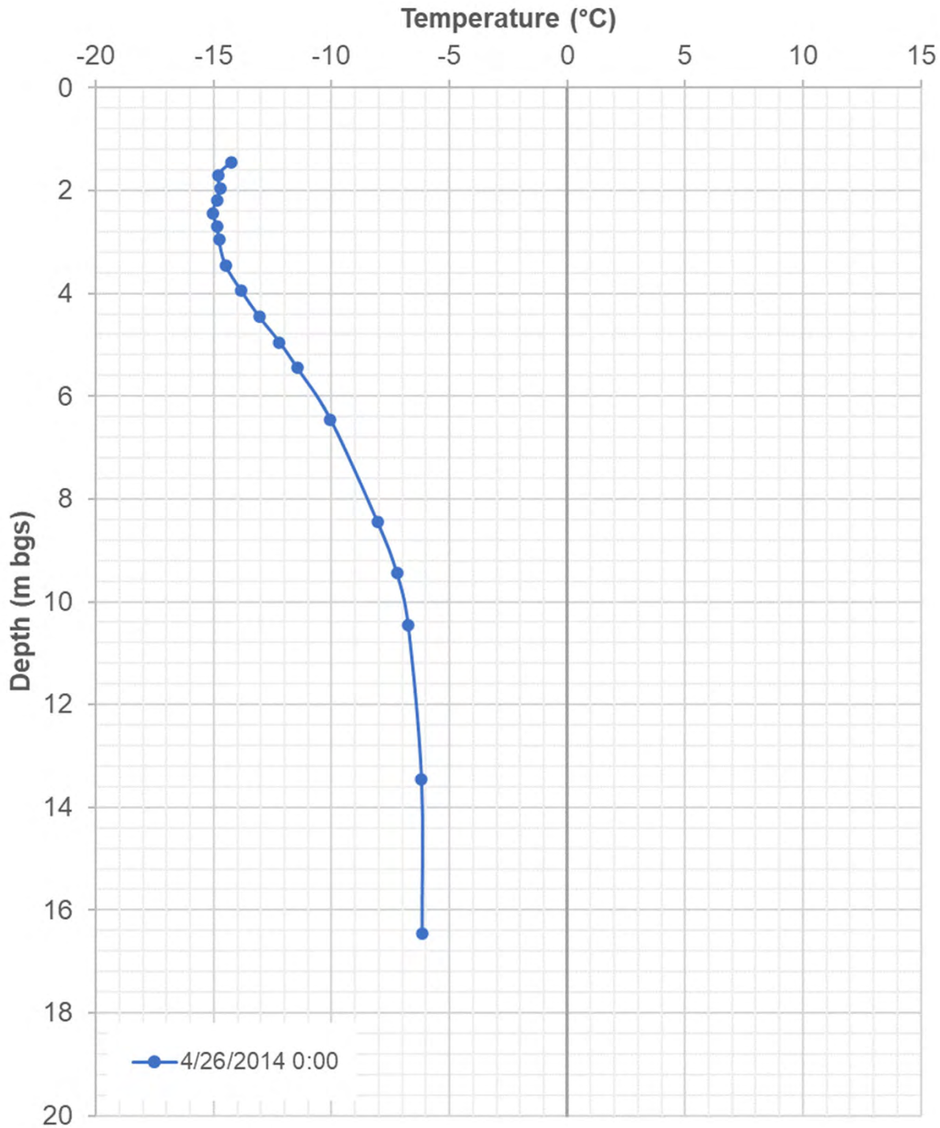
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5
10
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2
4
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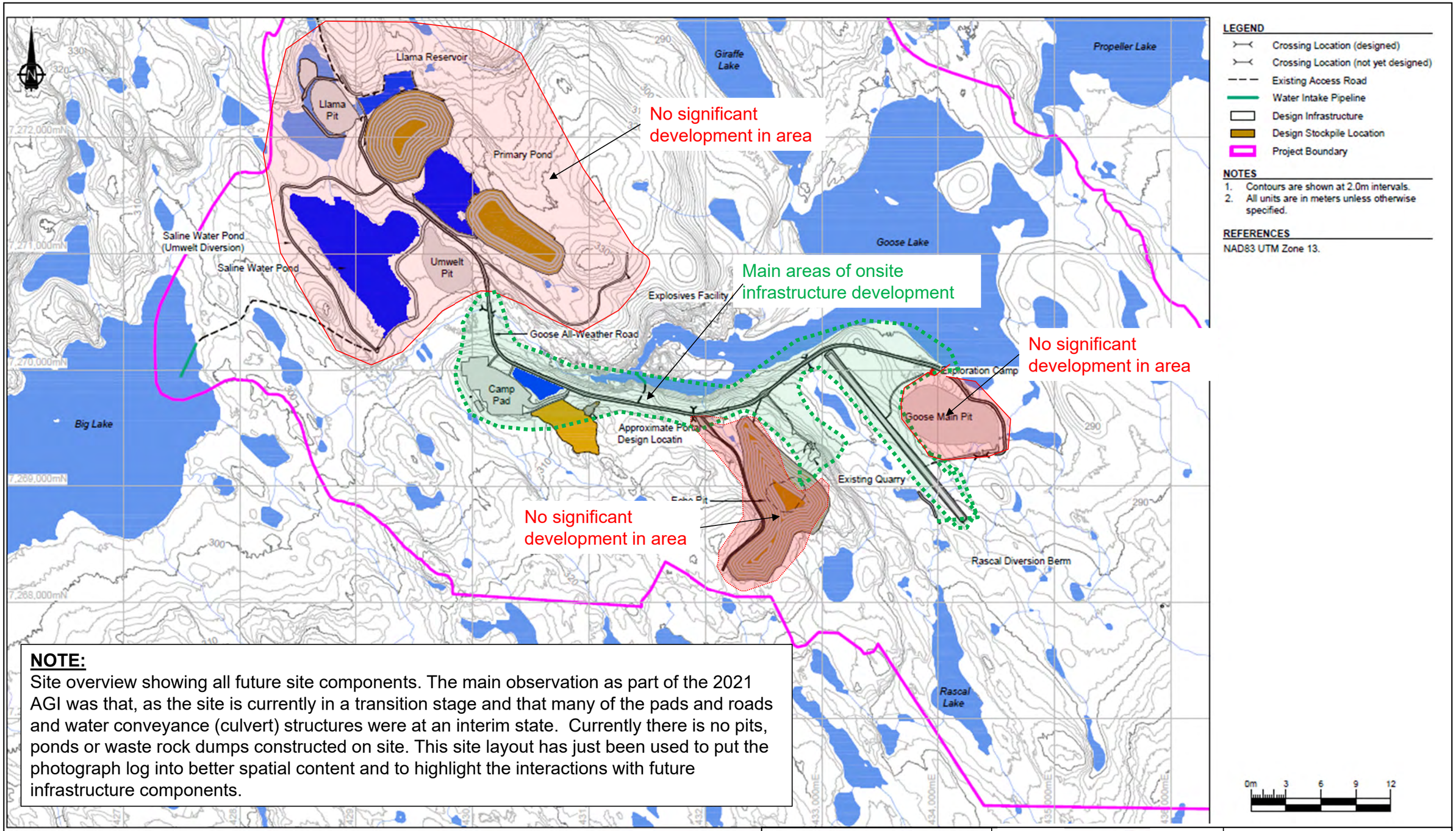
18
20
Depth (m bgs)
4/26/2014 0:00

Attachment 3 Photolog from July 2021 Site Visit



LEGEND

- Crossing Location (designed)
- Crossing Location (not yet designed)
- Existing Access Road
- Water Intake Pipeline
- Design Infrastructure
- Design Stockpile Location
- Project Boundary

NOTES

1. Contours are shown at 2.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.

NOTE:

Site overview showing all future site components. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Currently there is no pits, ponds or waste rock dumps constructed on site. This site layout has just been used to put the photograph log into better spatial content and to highlight the interactions with future infrastructure components.

Refference: Back River Project, Goose Site. General Arrangement, Drawing No. GOOSE-1. Dated April 2020

srk consulting

Job No: 1CS020.021

Filename: BackRiver_2021GeotechInspection_PhotoLog

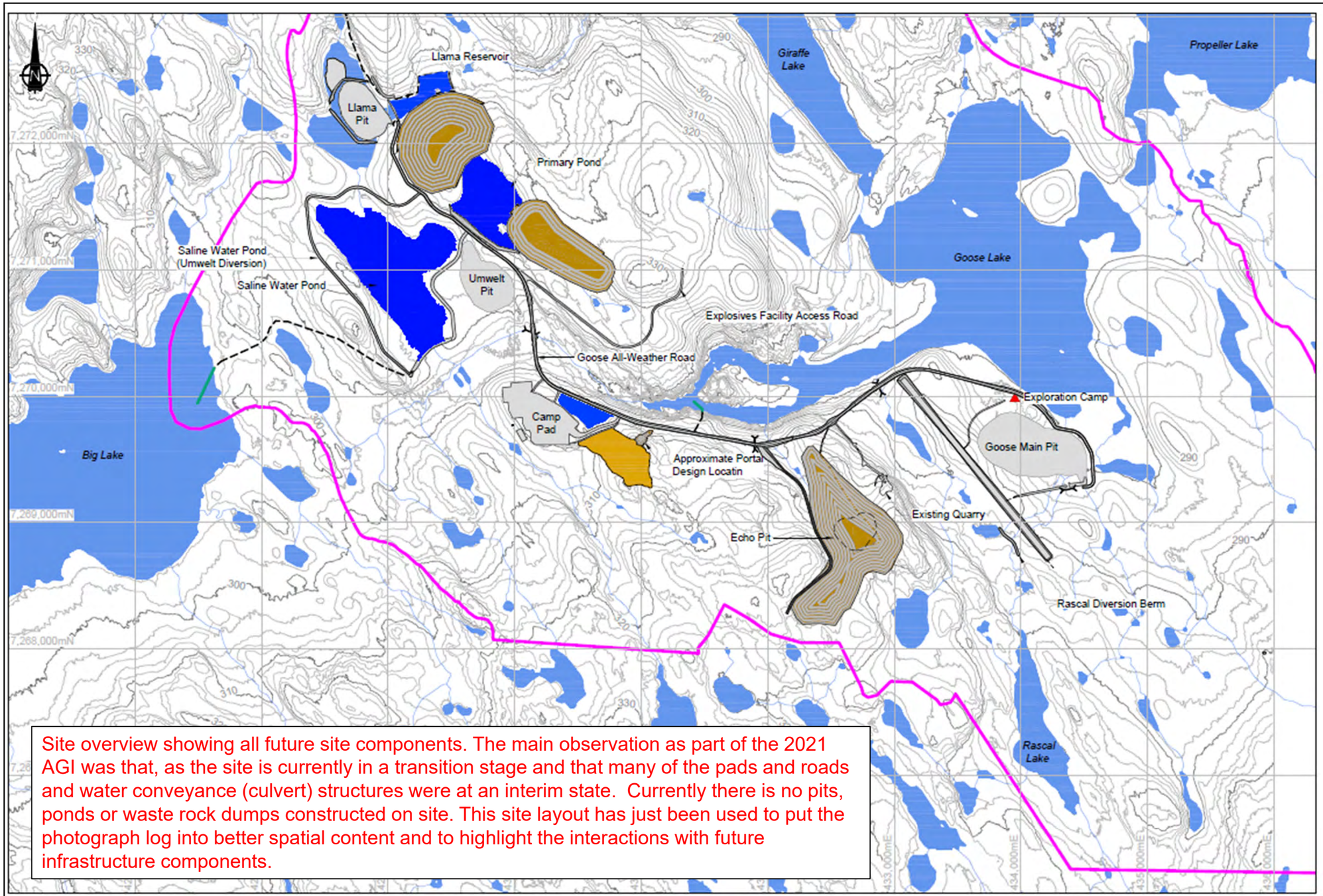
Sabina GOLD & SILVER CORP.

Back River Project

2021 Geotechnical Inspection

Future Site Layout – Plan Overview

Date: Feb 2022 | Approved: DG / JBK | Figure: **1a**



Site overview showing all future site components. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Currently there is no pits, ponds or waste rock dumps constructed on site. This site layout has just been used to put the photograph log into better spatial content and to highlight the interactions with future infrastructure components.

LEGEND

- Crossing Location (designed)
- Crossing Location (not yet designed)
- Existing Access Road
- Water Intake Pipeline
- Design Infrastructure
- Design Stockpile Location
- Project Boundary

NOTES

1. Contours are shown at 2.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.

0m 3 6 9 12

Refference: Back River Project, Goose Site. General Arrangement, Drawing No. GOOSE-1. Dated April 2020

srk consulting

Job No: 1CS020.021
Filename: BackRiver_2021GeotechInspection_PhotoLog

Sabina GOLD & SILVER CORP

Back River Project

2021 Geotechnical Inspection

Future Site Layout – Plan Overview Without Notes

Date: Feb 2022 | Approved: DG / JBK | Figure: **1b**

Photo 1 – view looking in southerly direction along airstrip

Photo 3 – View looking in southerly direction along airstrip

Photo 2 – View looking in southerly direction along airstrip, water management channel in place.

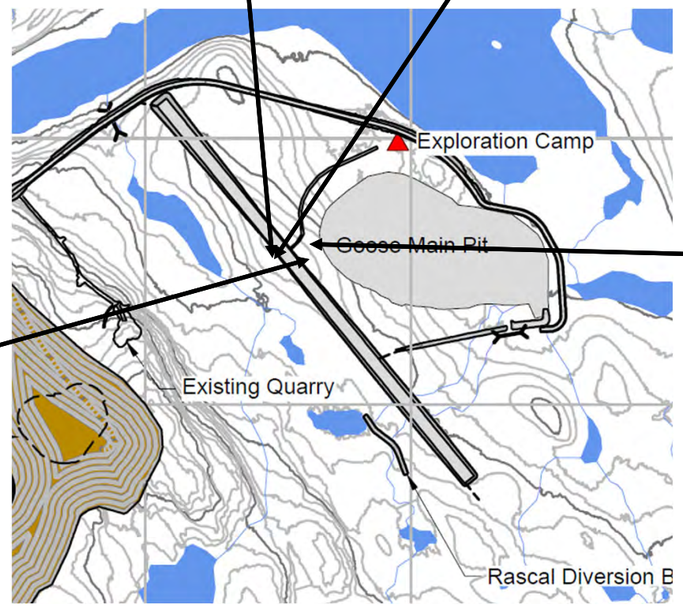


Photo 4 – view looking in southerly direction along airstrip. Note larger natural water bodies on right of photo. Water then flows towards airstrip

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **2**

Photo 5

Photo 7 – view southeast of ponded water

Photo 8 – water flow looking north, water travels towards airstrip and diverted to the southwest.

Photo 6

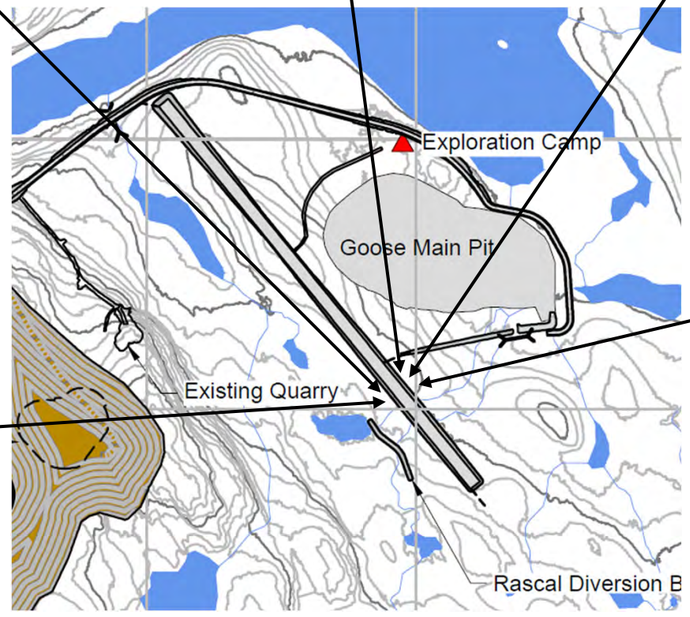


Photo 9 – Water ponded and flowing towards southeast

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Airstrip**
		Date: Feb 2022 / Approved: DG / JBK / Figure: **3**

Photo 10

Photo 12

Photo 13 – Southern end of airstrip, note thin fill thickness

Photo 11

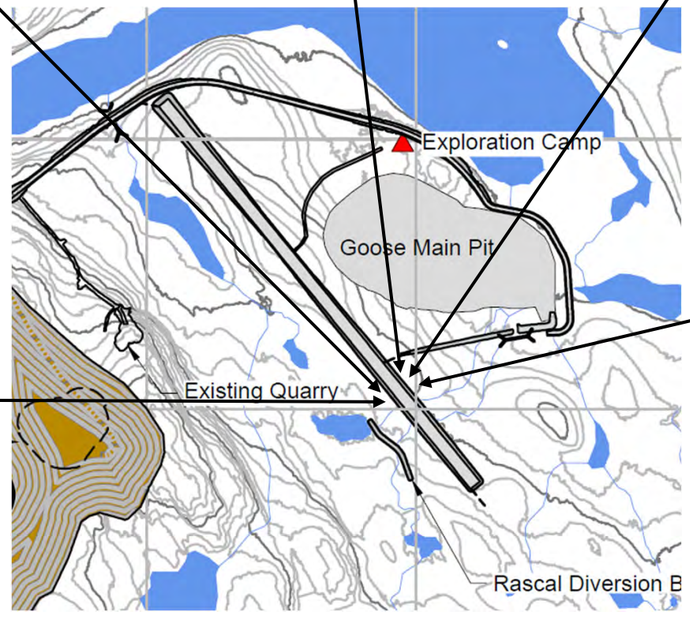


Photo 14 – Water ponding at southern point of airstrip, flow continues southeast

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **4**

Photo 15 - Water flow away from the airstrip towards the southeast

Photo 16 – Water flow away from the airstrip towards the southeast

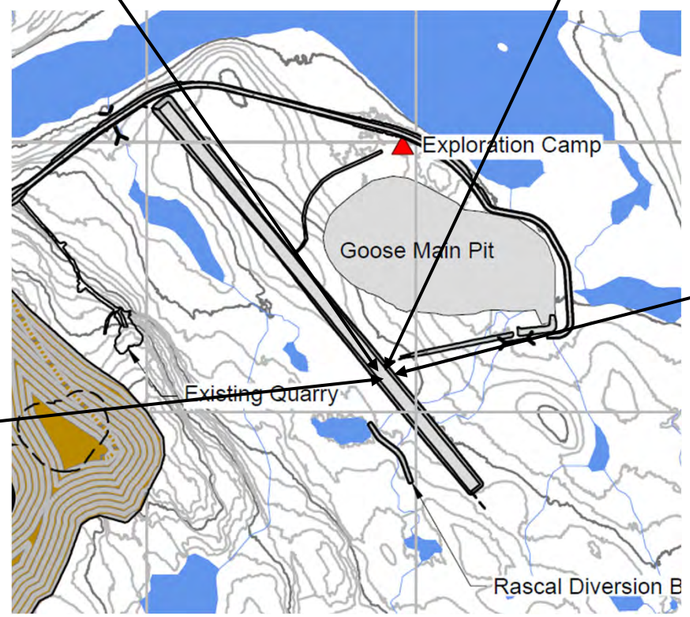


Photo 17 - Water flow away from the airstrip towards the southeast

Photo 18 – water ponding at southern end of airstrip, also note think airstrip fill.

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **5**

Photo 19 – water flow around airstrip towards southeast

Photo 21

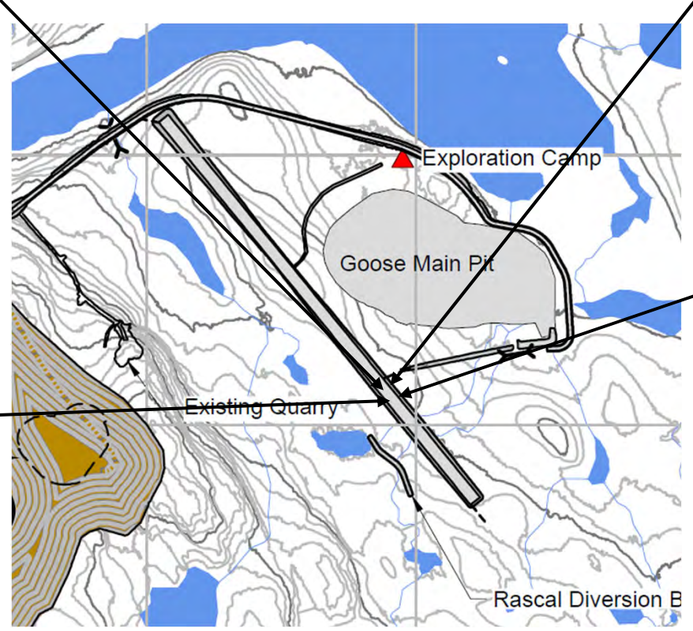


Photo 22 – southern end of airstrip, note thick airstrip fill thickness; geotextile exposed.

Photo 20

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Airstrip** Date: Feb 2022 · Approved: DG / JBK · Figure: **6**

Photo 23

Photo 25

Photo 26 – Southern end of airstrip where think fill note, no cracking or undulation observed

Photo 24

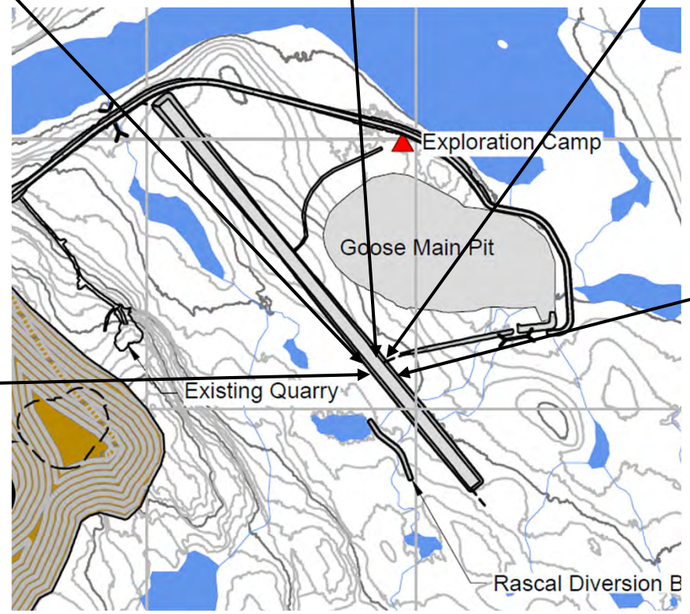


Photo 27 – View northerly direction of airstrip surface, no cracking observed despite lower fill thickness

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **7**

Photo 28 – Northern end of airstrip

Photo 29 - Northern end of airstrip

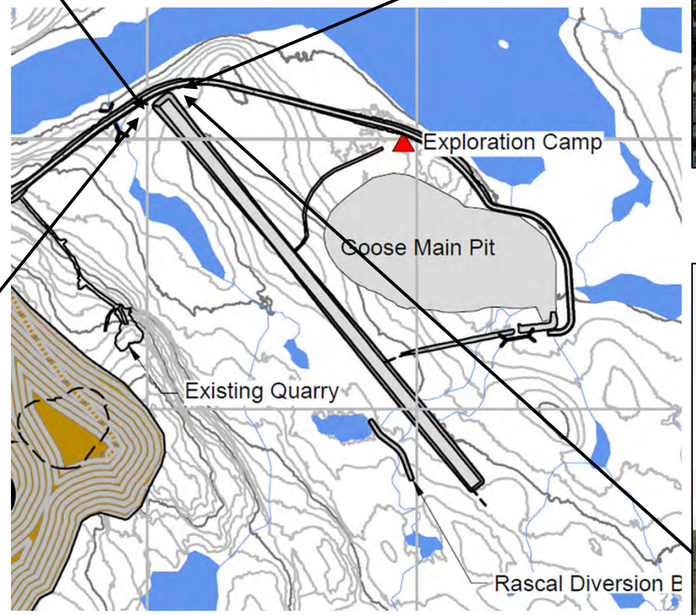


Photo 30 - Northern end of airstrip

Photo 40 - Northern end of airstrip

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **8**

Photo 1 – Outlet, note rocks placed to dissipate water energy at culvert outlet.

Photo 2 – Inlet, no ponding observed

Note: Culvert #1 is a small operation culvert (not a main flow path). This is located northwest of the exploration camp area

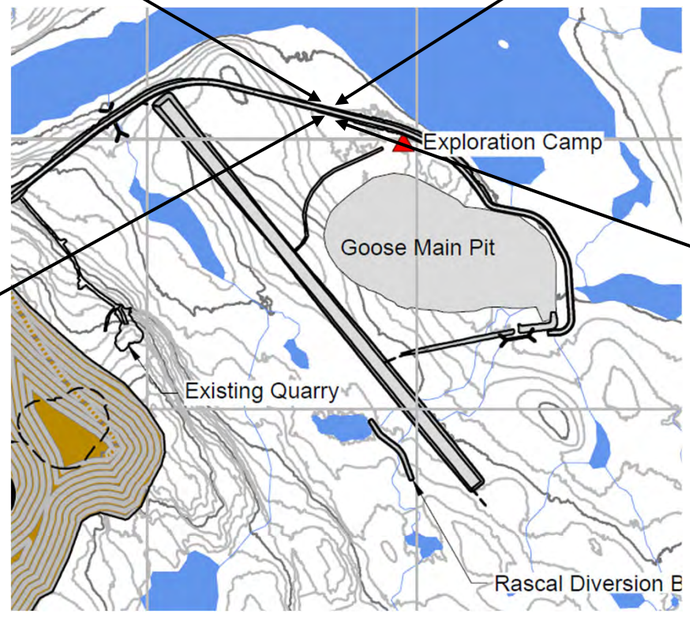


Photo 3 - Outlet, note rocks placed to dissipate water energy at culvert outlet. Cover above pipe may be insufficient/problematic when traversed by larger vehicles.

Photo 4 - Intel

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Operation Culvert
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **9**

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two). Providing photos of this location for completeness.

Photo 5 - Inlet

Photo 7 - Outlet

Photo 8

Photo 6 - Outlet

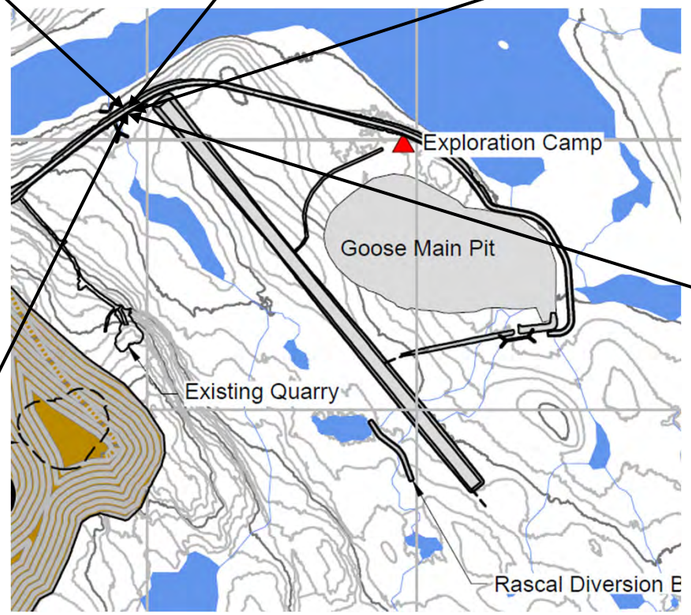


Photo 9 - Outlet

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Rascal Crossing (Bridge 1)** Date: Feb 2022 / Approved: DG / JBK / Figure: **10**

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two).

Photo 10

Photo 12

Photo 13

Photo 11

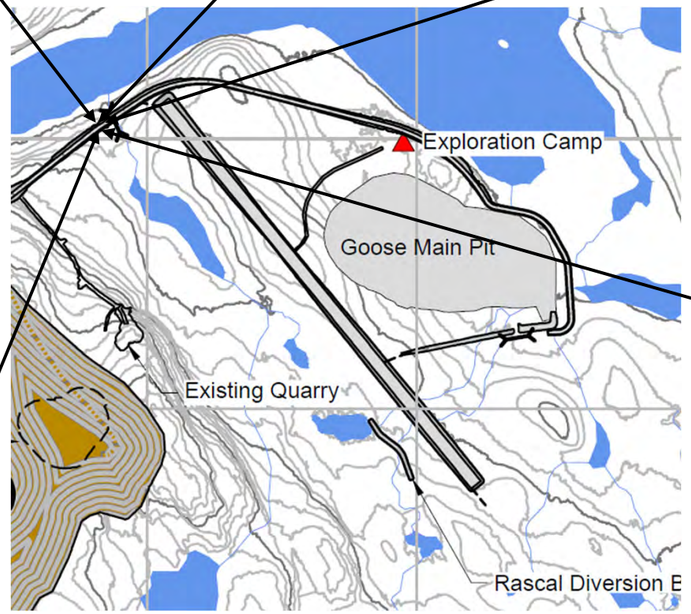


Photo 14

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Rascal Crossing (Bridge 2)** Date: Feb 2022 / Approved: DG / JBK / Figure: **11**

Photo 15

Photo 16

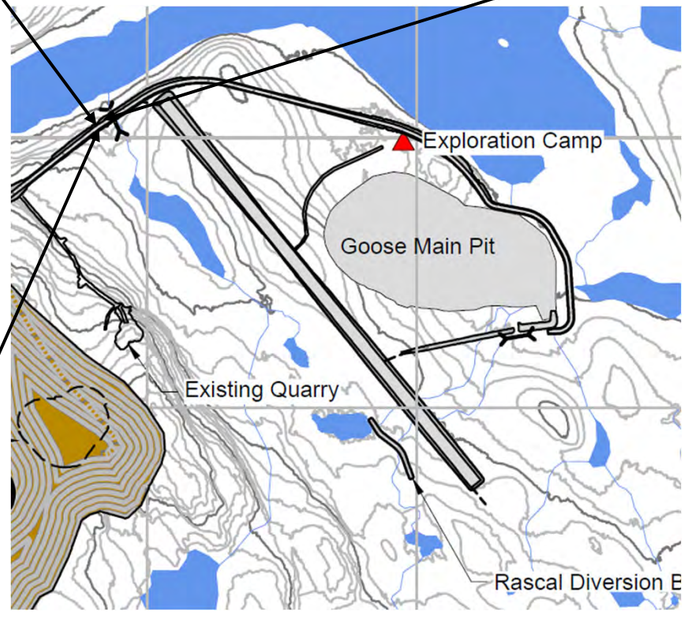


Photo 17

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two). Providing photos of this location for completeness.

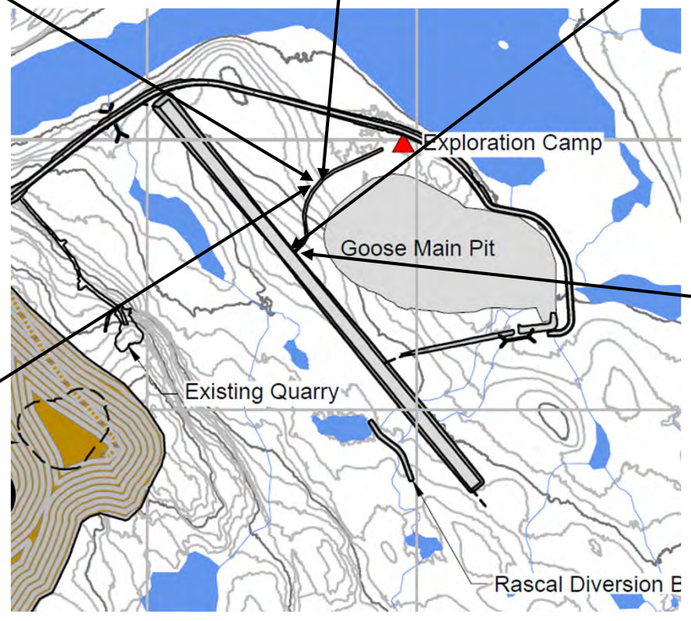
srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Rascal Crossing(Bridge 2)
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **12**

Note that culvert #3, and 4 are small operation culverts (not a main flow path). These are located on the historic access road from the exploration camp to the airstrip

Photo 18 – Culvert invert at outlet below tundra surface

Photo 19

Photo 20



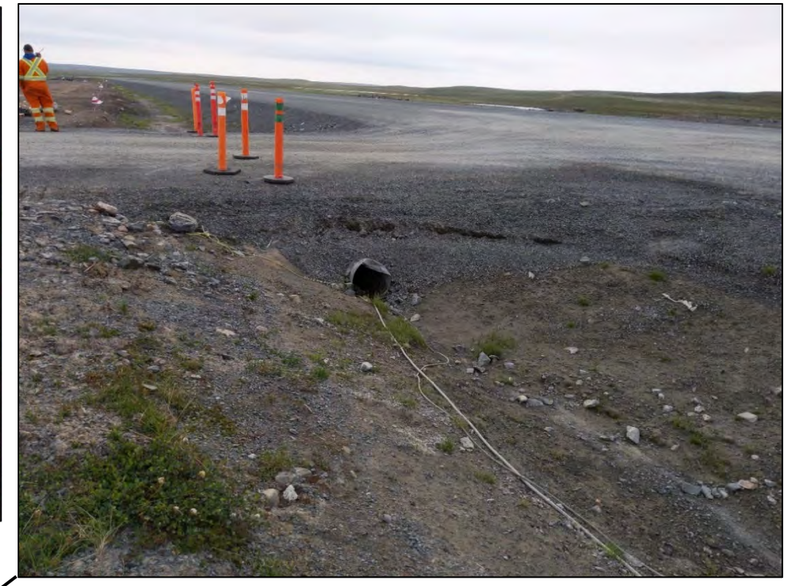


Photo 21 – Culvert along airstrip channel along northern edge

Photo 22

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Culverts Noted Along Historic Exploration Airstrip Access Road
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **13**

Photo 23

Photo 25

Photo 26

Photo 24

Photo 27

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Echo Crossing / Culverts
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **14**

Note that the culverts shown in the photos below are small operation culverts (not on main flow path). These have been used on site to help increase water management and avoid ponding against road (good practice to assist with limiting permafrost degradation).

Photo 23

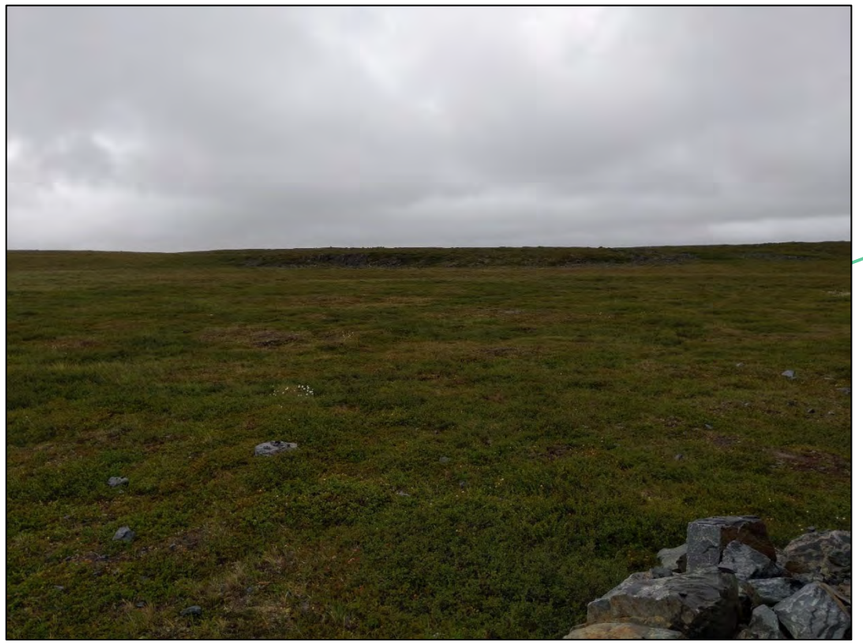


Photo 24

Photo 25

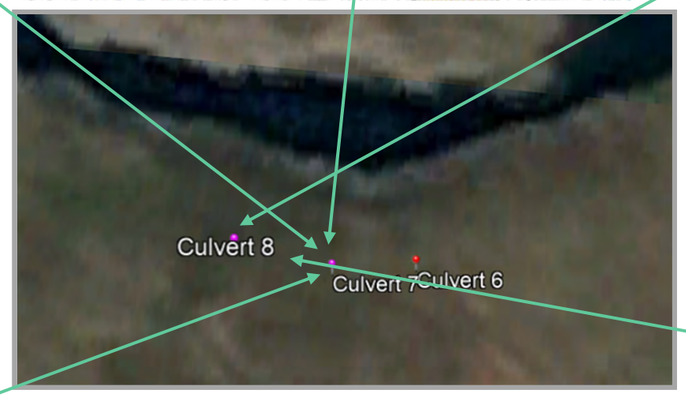


Photo 26

Photo 27

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Small Operation Culverts
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **15**

Photo 1

Photo 3

Photo 4 – Boulders blocking vehicle access

Photo 2

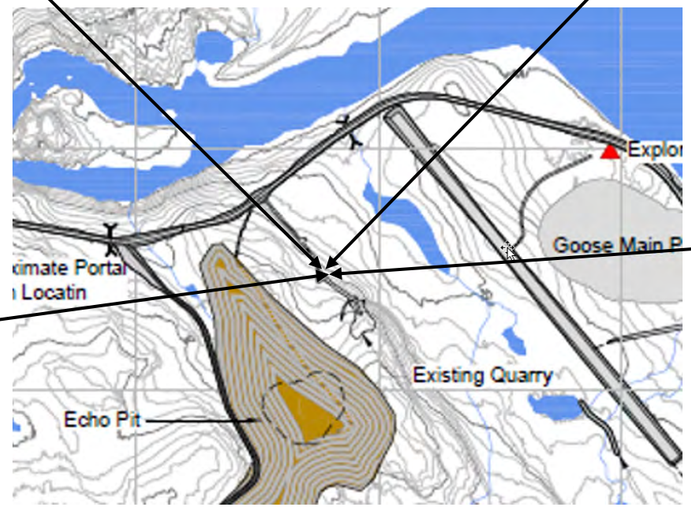
Photo 5 – no signage prohibiting access by foot

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Existing Quarry
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **16**

Road 1 – Photo 1

Road 1 – Photo 3

Road 1 – Photo 2



Road 1 – Photo 4

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Quarry Road
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **17**

Photo 1

Note: The Goose portal pad and portal development was outside the scope of this AGI. The portal pad was in active development (interim state) when SRK was on site. Photos provided from completeness / to show site activities at the time of the inspection.

Photo 3

Photo 2

Photo 4

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Portal Photolog
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **18**

Photo 5

Photo 6

Note: The Goose portal pad and portal development was outside the scope of this AGI. The portal pad was in active development (interim state) when SRK was on site. Photos provided from completeness / to show site activities at the time of the inspection.

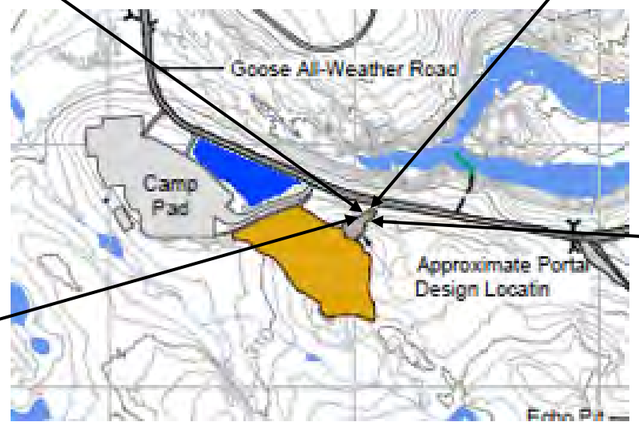


Photo 7

Photo 8 – note portal workshop pad

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Portal
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **19**

Photo 1

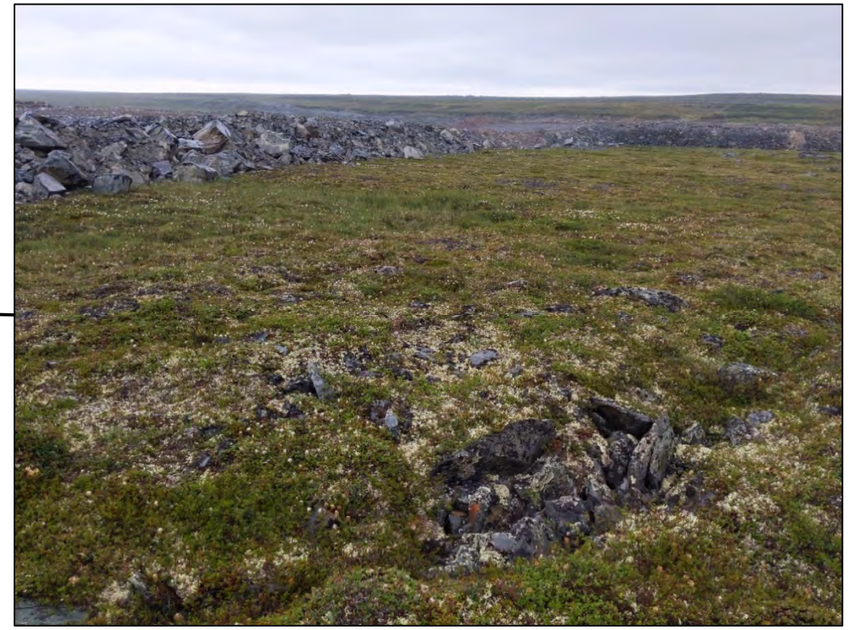


Photo 3

Photo 2

Photo 4

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Camp Contact Water Pond Footprint
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **20**

Photo 5

Photo 7

Photo 8

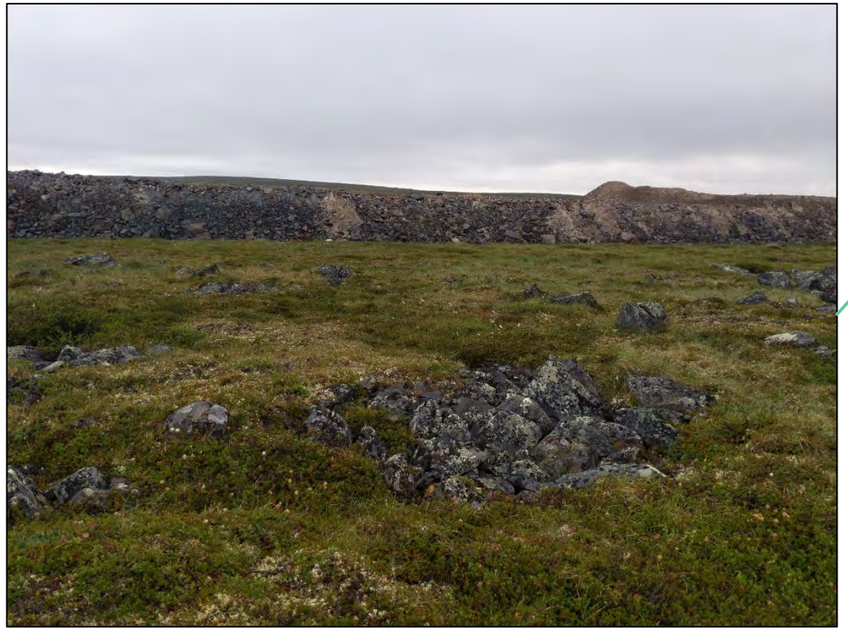


Photo 6

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
	Back River Project	**Camp Contact Water Pond Footprint**
		Date: Feb 2022 / Approved: / Figure: **21**

Photo 9 – Some ponded water observed within footprint

Photo 11

Photo 10

Photo 12 – Some ponded water observed within footprint

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection		
	Back River Project	**Camp Contact Water Pond Footprint**		
		Date: Feb 2022	Approved:	Figure: **22**

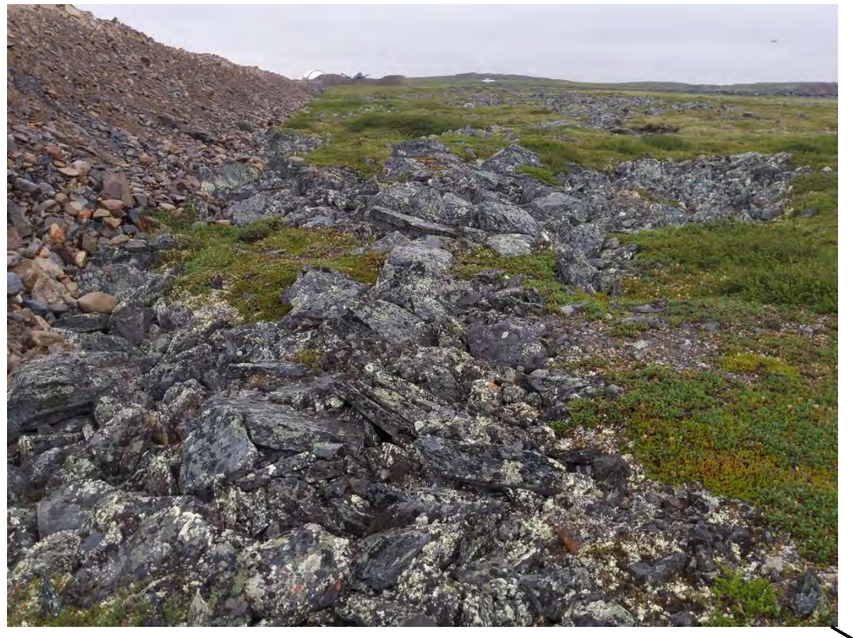


Photo 13

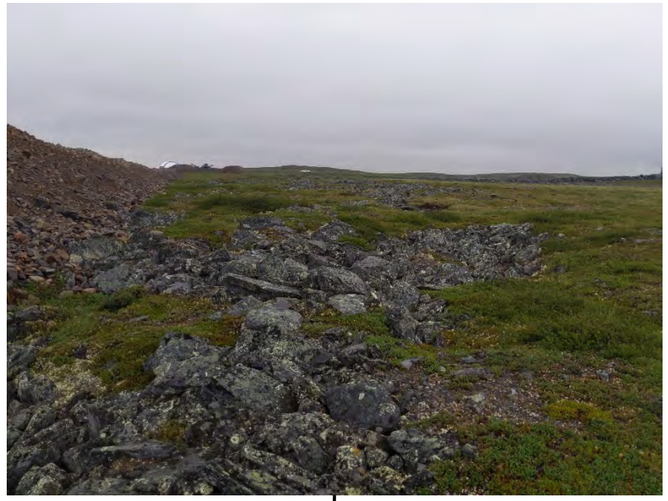
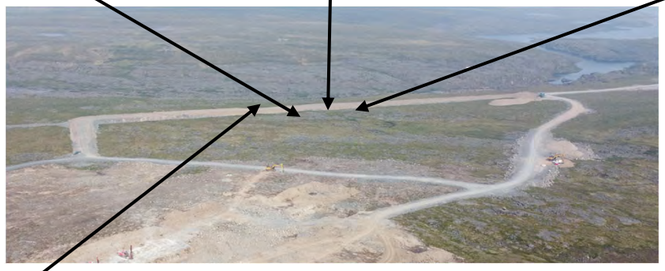


Photo 15

Photo 16 – Fractured rock extending under CWO embankment area

Photo 14 – Fracture rock extending beyond CWP embankment area



srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Camp Contact Water Pond Footprint
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **23**

Photo 17 – View downstream from road

Photo 18

Photo 19

Photo 20

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Camp Contact Water Pond Footprint
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **24**

Photo 21

Photo 22

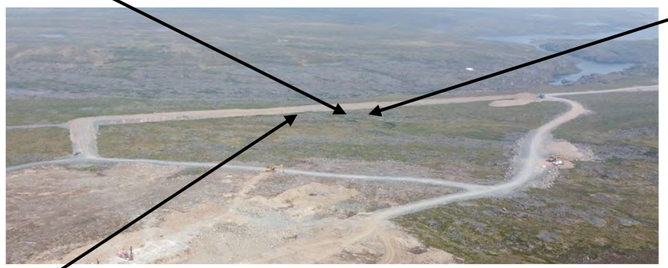


Photo 23 – Note cracks on roadway, road fill ~4 m above tundra

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Camp Contact Water Pond Footprint
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **25**

Photo 24

Photo 25

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Camp Contact Water Pond Footprint** Date: Feb 2022 · Approved: DG / JBK · Figure: **26**

Photo 26 – Highly fracture rock outcrop

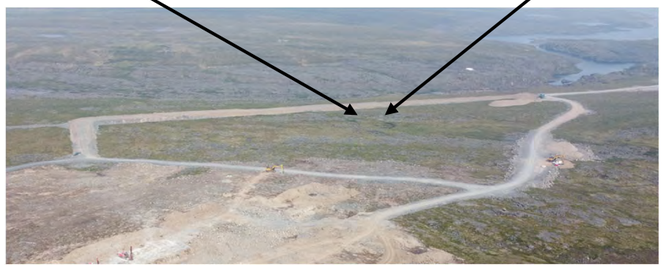


Photo 27 – Highly fractured rock outcrop extending through planned embankment area

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Camp Contact Water Pond Footprint** Date: Feb 2022 / Approved: DG / JBK / Figure: **27**

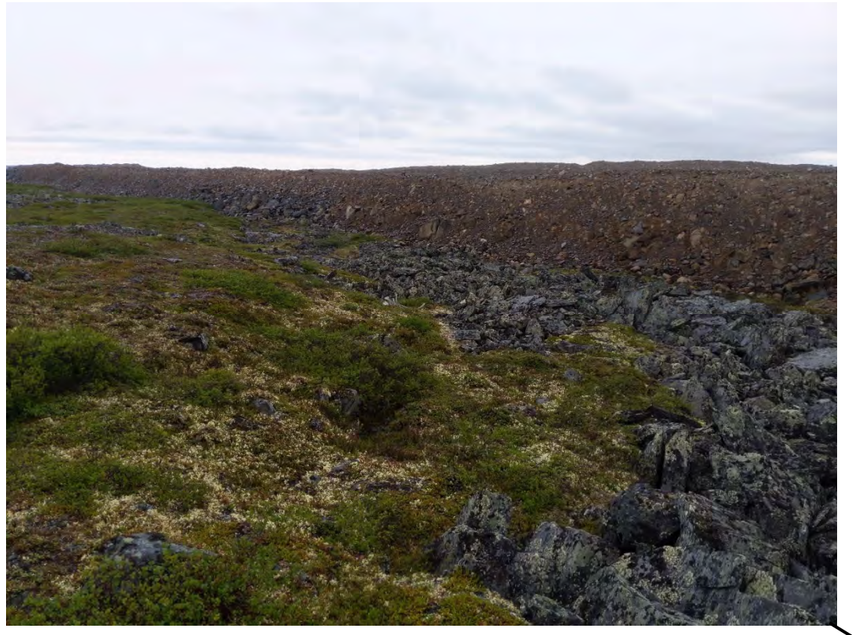


Photo 28

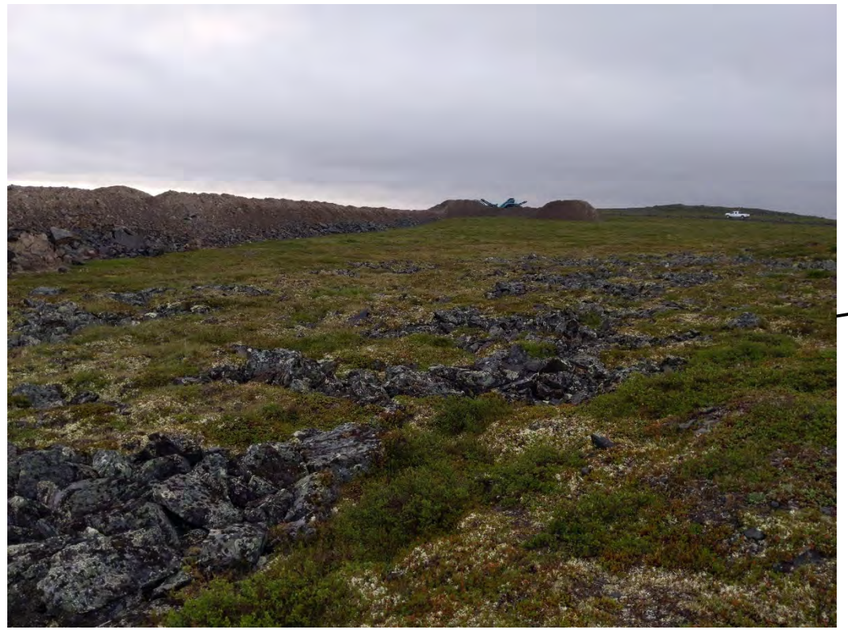


Photo 29

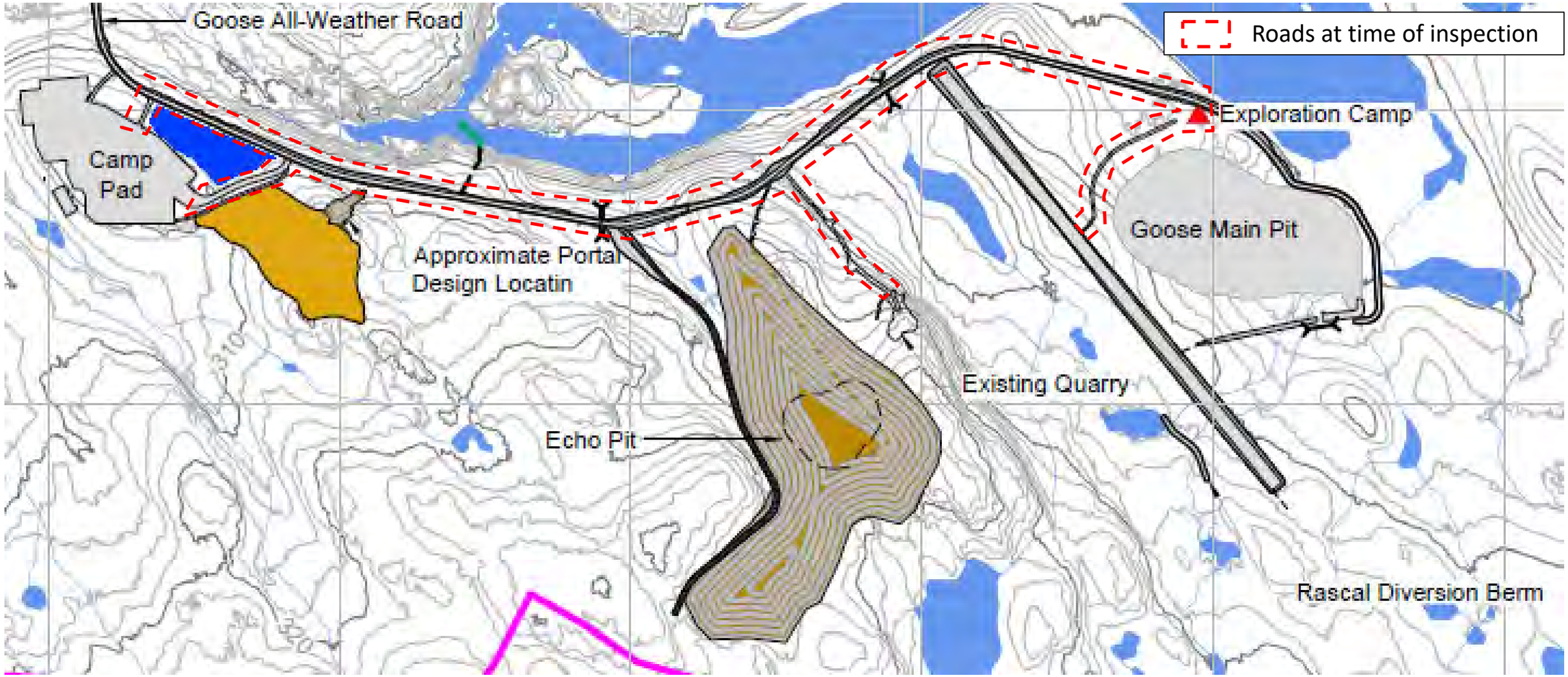
Photo 30

Photo 31

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Camp Contact Water Pond Footprint**
		Date: Feb 2022 / Approved: DG / JBK / Figure: **28**

Note: At the time of the summer SRK inspection there were no tanks installed on site at the plant site pad. This photo shows an overview of the site development activities at the plant site pad area at the time of the summer 2021 inspection. This location was in a state of active development

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Site Development Activist at the Plant Pad / Site
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 | Approved: DG / JBK | Figure: **28**



srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Existing Roads During Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **28**

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vancouver@srk.com
www.srk.com

April 4th, 2022

Environmental Permitting Manager
Sabina Gold & Silver Corp.
1800 – 555 Burrard Street
Box 220
Vancouver, BC,
Canada, V7X 1M9

Attention **Merle Keefe, Environmental Permitting Manager for Sabina Gold and Silver**

Subject **Goose Project Site – 2021 Annual Geotechnical Inspection**

Project 1CS020.021

Dear Merle,

SRK Consulting (Canada) Inc. has been contracted by Sabina Gold & Silver Corp. to conduct a geotechnical site inspection for the Back River Project (Project). The Project is a proposed gold mine located in the territory of Nunavut, roughly 525 km northeast of Yellowknife, 160 km south of Bathurst inlet.

Background

This annual geotechnical inspection (AGI) is an annual requirement in response to Part 1, Item 10 of Sabina's Water Licence 2AM-BRP1831 – Amendment No. 1, issued by the Nunavut Water Board (NWB) on October 15, 2021. The objective of the geotechnical inspection is to ensure that the project's surface infrastructure is performing as intended from a geotechnical perspective and in the context of the project site use. The emphasis to a large extent, based on the project's location in a cold climate continuous permafrost area, is ensuring permafrost integrity is upheld.

The 2021 AGI for the Goose site is the subject of this memorandum.

2021 Annual Geotechnical Inspection

Two visits were carried out to comprise the 2021 annual geotechnical inspection (AGI). The first site visit was carried out by John Kurylo, MSc, PEng., between April 10th and April 19th. The weather conditions were typically cold and overcast with periods of light blowing snow. As there was still some snow cover on the ground during the first inspection, and as it was hard to view the toes and surface

water flow paths, a secondary site visit was performed in the summer of 2021 (during the snow free months).

The second site visit was carried out by Darryl Godley, a Geotechnical Consultant with SRK, between the 22nd and 23rd of July 2021. Darryl's site visit was in close contact with and under the supervision of John Kurylo. Weather conditions during the inspection were cool with heavy winds and rain. A photo log showing an overview of the July 2021 inspection is provided in Attachment 3.

The inspections were focused on the water management infrastructure and, at the time, the foundation preparations for the new camp tank farm. Note that the portal and decline area were outside the scope of this inspection and were not looked at or included as part of this AGI. The inspection of the airstrip, culverts, bridges, access roads, tank farm foundations and the future Camp Contact Water Pond footprint were carried out using a skidoo (March) and by pickup truck (July). Frequent stops were made for physical (on foot) inspections. No drone photography or helicopter access was available at the time of these inspection (in part due to the weather on site at the time and due to equipment availability). Either drone photography or a helicopter reconnaissance of the site would be suggested to help improve the future 2022 geotechnical inspection. Aerial inspections, or aerial photography, would assist to get an overall aerial overview of the interactions between surface water flow and the various (in progress) water infrastructure, beyond what can be observed by close visual inspection and from topography data review. The aerial photographs will also assist with looking at any permafrost degradation over the long term.

In addition to the specific observations and recommendations, as overviewed in Attachment 1, SRK would like to reiterate a few overarching design and operating principles as it relates to geotechnical stability, design and performance, while specifically focusing on the permafrost integrity at the project site:

- Design and construction of all pads and roads at Back River are intended to minimize permafrost damage and are designed based on specific thermal criteria. Underbuilding of roads and pads will result in permafrost damage because of thermal erosion, which will require ongoing maintenance and significant remediation costs at closure. SRK currently note involved in scopes of work beyond the water management infrastructure at the Goose site, and therefore are unable to further comment on the current pad and road designs and are only able to comment on what has been communicate and what is visible on site. Sabina is reminded to consult the appropriate site-specific reference materials when designing and constructing new pads and roads. Specific areas of interest are noted in the 2021 AGI, and often key observations are near areas where surface water was noted to be flowing into or below infrastructure, or along the toes and outside crest of the roads, airstrip and pads. See Attachment 1.
- Care needs to be taken when constructing permanently heated buildings on the rockfill pads. Prolonged heat generated from these buildings will result in the active layer below the pad deepening, which in turn could lead to degradation of the underlying permafrost, and manifestation of undue settlement. No specific new observations related to new heated structures (outside of the historic exploration camp area) were noted as part of the 2021 AGI. However, building to ground heat transfer, should be closely considered as the areas around the permanent camp pad and

plant site area, that are expected to be advanced in 2022. Where possible it should be considered if structures can be elevated to allow air flow below the buildings, or if this is not possible if additional insulation material, or in extreme case thermosyphons may be required (specifically in the foundation areas built on overburden permafrost that has been identified as having sections of massive ice). The impact of heat transfer to the foundation will be directly linked to the design tolerance of the buildings and structures and can be considered accordingly (for example foundation below tanks would have very low tolerance, whereas general roads and pads below items like trailer buildings or sea can would have higher tolerances / be able to accommodate more movement in the foundation).

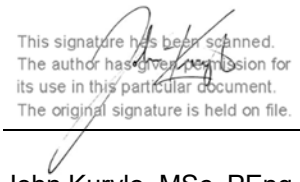
- Sabina is reminded that the maximum active layer thickness occurs around August at the end of the summer season. All road and pad shoulders are at their most vulnerable during this period as the thermal protection at these shoulders are less than the minimum required (by standard geometry), resulting in localized deepening of the active layer. As a result, tension cracks and general softening are most prevalent at the shoulders (outer sides). Sabina should take special precautions to limit vehicle traffic within 1 m from all shoulders. As outlined in Attachment 1, tension cracking along the western side of the airstrip and portions of the roads, specifically by where the future camp pad pond is expected, were noted in 2021 inspections. These are not atypical but should be monitored. Specifically, the airstrip shoulders should continue to be closely monitored from June to November to ensure that any additional maintenance is able to be conducted as required.
  - Due to the critical and higher risk nature of the Goose airstrip, drone photographs and photos taken from ground level should be taken again in the summer of 2022 and compared to the information collected in 2021. This would be done to make a better assessment of ongoing permafrost degradation rates and potential maintenance requirements.
  - SRK is aware that Issued for Permit (IFP) drawings were issued in August 2020 for the Rascal Diversion. As the airstrip expansion is now underway / in progress it is suggested that the Rascal Diversion be constructed sooner than later. From discussions with Sabina, it sounds like the Rascal diversion may be constructed in 2022. The Rascal Diversion Berm, located WSW and adjacent to the airstrip, will help to redirect more surface water flow away from the airstrip (toward Gosling Pond and down the natural flow paths). The Rascal Diversion will likely will not alleviate all ponding against the airstrip but is expected to have an overall positive impact and reduce the overall magnitude and volume of ponding and assist to reduce overall long-term maintenance at the airstrip.

Notwithstanding the observations and recommendations provided in this AGI (see Attachment 1), the Back River site is performing in reasonable accordance with predicted geotechnical expectations. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Figure 1 shows recent earthwork progress at the Goose site, in comparison to the final design footprints, and highlights some of the current in progress areas that Saina is working on as Goose moves from exploration towards a development and operational stage.

Specifically, many of the areas of the roads, and area along the southwestern side of the Goose Airstrip expansion had fill thicknesses less than the final design thickness. If these areas are left in an underbuilt stage for multiple years, then the active layer in these areas would be expected to deepen, and either require more long-term maintenance (until conditions stabilize), or additional fill thicknesses (to accommodate a deepening active layer).

From a performance and geotechnical point, a closer review of what has been installed at the Echo Creek crossing, and the temporary measures at the Goose Neck crossing is suggested. Some tension cracking was seen near the shoulders of the road adjacent to, and that will ultimately become part of, the future Camp Pad Pond. Sabina should consider near term widening and/or additional fill placement (increased thickness) at that camp pad pond road section. From a safety point of view, close monitoring of the Goose Airstrip remains a top priority. Additional comments and observations are provided in the attached Figure and Attachments 1 to 3.

Regards,
SRK Consulting (Canada) Inc.



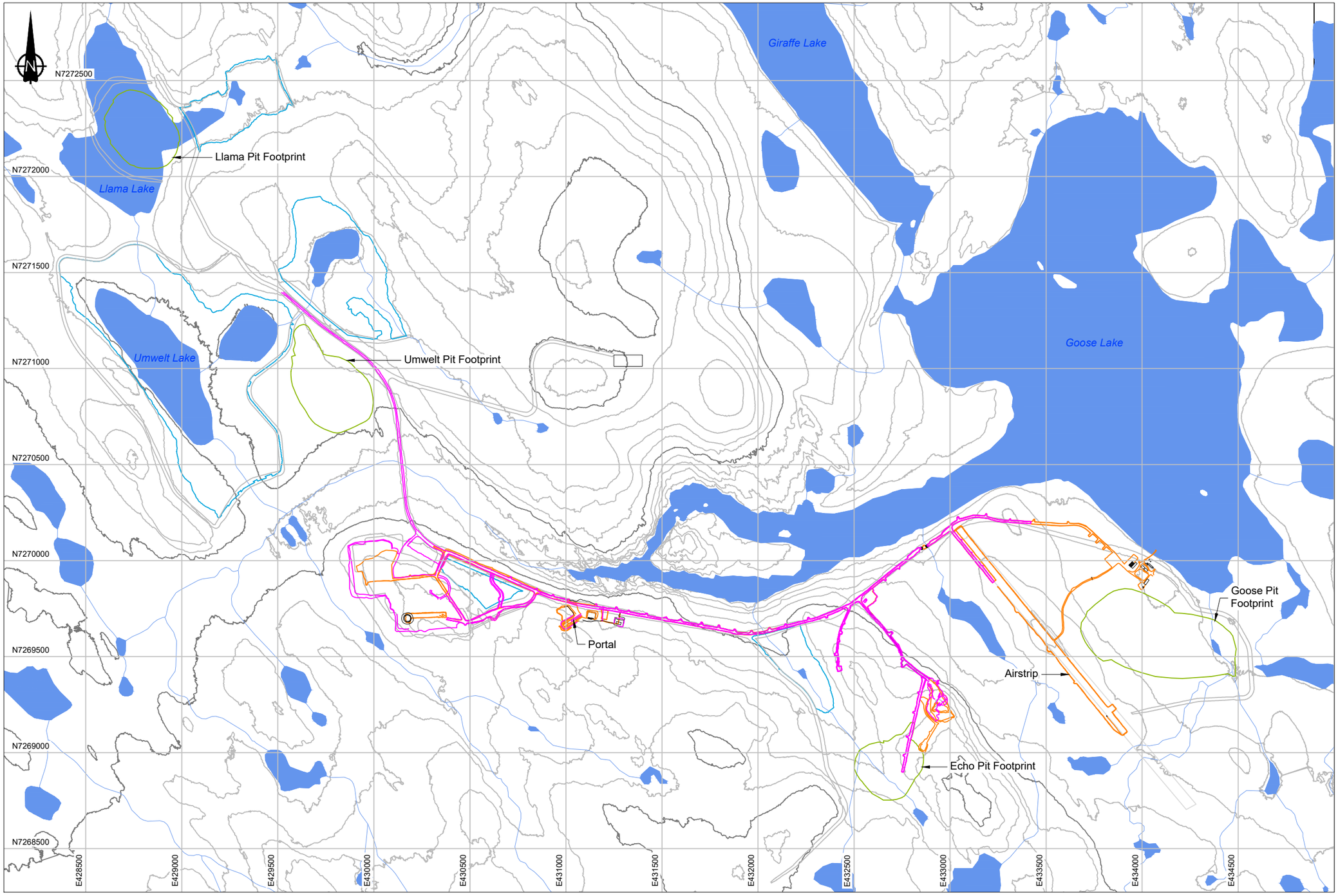
John Kurylo, MSc, PEng
Principal Consultant (Geotechnical)

Attachments:

Figure

Attachment 1	Summary of Observation and Recommendations – Goose
Attachment 2	Summary of Available Ground Temperature Data
Attachment 3	Photolog from July 2021 Site Visit

Figure



LEGEND

- Design Infrastructure
- 2020 As-Constructed Infrastructure
- 2021 As-Constructed Infrastructure

NOTES

1. Contours are shown at 5.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.
As-Constructed drawing files provided by client:
- SBR7LED-21-C-PLN-0001-AS BUILT NOV.21.dwg
- SBR7LED-21-C-PLN-0003-PORTAL PAD.dwg

0m 200 400 600 800

NOTE: As of the 2021 AGI no pits, waste rock storage or ponds had been constructed on site

srk consulting

SRK JOB NO.: 1CS020.021
FILE NAME: Goose Site.dwg

Sabina GOLD & SILVER CORP.

Back River Project

2021 Annual Inspection

DRAWING TITLE: General Arrangement
Comparison of 2021 Infrastructure to Final Development Plans

DATE: March 2022 | APPROVED: JBK | FIGURE: 1

C:\Users\thayw\SRK Consulting\FS203 Goose Lake (Back River) - 1040_AutoCAD\Annual Inspection\2021\Goose Site.dwg

Attachment 1 Summary of Observation and Recommendations – Goose

Inspection Item	2021 Observations and Recommendations
General Comment / Overview	• The main observation as part of the 2021 Annual Geotechnical Inspection (AGI) was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Site is currently in a transition from exploration towards an operating site (development stage). So many of the comments in the Annual Geotechnical Inspection are linked to items that should continue to be monitored or considerations for some of the key water management areas that should be considered as the site infrastructure construction advances.
Goose Airstrip	• Prior to landing any aircraft on the runway, the aircraft operators should conduct their own assessment of the runway conditions (in terms of functionality) and make recommendations for maintenance. Ultimately it will be at the discretion of the aircraft operators if the airstrip surface is acceptable for their aircraft. • SRK's review of the airstrip focused on identifying distress of the airstrip embankment and changes in the natural terrain, based on the available imagery data and visual inspections. Distress of the airstrip embankment, mainly near the immediate edges / shoulders, was identified as small linear tension cracks or depressions, inferred to be caused by permafrost degradation in the underlying foundation. In areas this is enhanced by ponding water against the side of the airstrip (some from natural flow paths). • Water was observed to be ponding on the southwestern boundary of the airstrip. Water appears to be flowing northeast from the adjacent natural water bodies (located approximately 150m west / southwest of the airstrip before being intercepted by the airstrip fill). Ponding at the time of the summer inspection was approximately 100mm to 300mm deep with constant flow. The current conditions could result in additional permafrost degradation at the Goose Airstrip if additional water management measures are not implemented in the coming year. • Based on discussion with site staff the western and southwestern edge of the airstrip has been underbuilt in areas (as low as approximately 0.5m); as a temporary access as site staff works on the upgrades and expansion of the airstrip. The main running surface of the airstrip (where the planes would land) is therefore offset from the ponding water observed during the site inspections. • Permafrost degradation at the Goose airstrip is suggested to continue to be visually monitored each year during the annual geotechnical inspection. Ground level photographs, measurements, and aerial drone imagery should again be collected in 2022 to assist with ongoing monitoring. The area of most interest at this time is the most southern end of the airstrip where the most ponded water was observed adjacent to the toes. Refer to the Attachment 3 photolog for photos pertaining to the airstrip inspection.

Inspection Item	2021 Observations and Recommendations
Culverts and Surface Water Flow Management	• A total of six culverts and two temporary bridges were inspected. No ponding of water was observed at these water management structure at the time of the summer 2021 inspection however, some were noted to have consistent flow through them. • The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components were completed (to be done by others such as the design engineers). These bridges are a temporary measure that are planned to be removed in the short term (next year or two) however, they should be closely monitored and the load over these bridges restricted to what was outlined as per the design engineers' recommendations. During freshet observations should be collected on site to look if any of the flow paths come into contact with the bridge abutment fills. If any ponding water is observed against the bridge abutments, this should be removed to maintain the integrity of the underlying permafrost, until the more permanent and final crossings are installed. • Some attempt was made to dissipate the flow at the outlet of the culverts by placement of larger, approximately 0.3m to 0.5m, boulders at the outlets in areas. This may not be sufficient to prevent erosion of the tundra, an appropriate design should be considered. The outlet areas of the culverts should continue to be visually monitored and revisited as part of the 2022 AGI. • Cover over the culvert pipes is as low as 0.5m in some area. This may be insufficient cover for larger vehicles (that are planned on the site in the future) and may not provide enough thermal cover. Many of these culverts are more short-term operational culverts and may need to be removed or updated as the size of the haul road increases / advances towards the final arrangement. • As part of the summer 2021 inspection the access road towards the Goose Neck had not been constructed. See Attachment 3 for additional details and photos from the 2021 site visit. SRK understands that temporary measures at the Goose Neck crossing were installed, but that these measures are planned to be removed before freshet. The proper / final designs for the Goose Neck crossing are planned to be installed in 2022. A closer review of the Goose Neck Crossing area would be expected to be included in the 2022 AGI • It is suggested that site visit each culvert outflow during freshet to ensure appropriate energy dissipation is installed. Observations and photos should be collected of these culvert outlet locations to help track any developments in these areas. Specifically of interest in area where will have future Echo Pond as this could have thermal impacts on that pond design.

Inspection Item	2021 Observations and Recommendations
Road Thickness	• A general inspection of the roads was conducted during the site inspection. Road fill thickness and width vary throughout site. • Design and construction of all pads and roads at Back River are intended to minimize permafrost damage and are designed based on specific thermal criteria. Underbuilding of roads and pads will result in permafrost damage because of thermal erosion, which will require ongoing maintenance and significant remediation costs at closure. • Overall design width of the roads has not been built out to the full design limits. Until the full road design width and heights are constructed on site the size of the design vehicles will be limited. Currently on site most traffic is one way and the minimum interim design width of the roads with therefore be required to be at least two time the width of the vehicles that are using the access roads. This is more a point of consideration as site progresses towards a more final road width. • Sabina is reminded that the maximum active layer thickness occurs around August at the end of the summer season. All road and pad shoulders are at their most vulnerable during this period as the thermal protection at these shoulders are less than the minimum required (by standard geometry), resulting in localized deepening of the active layer. As a result, tension cracks and general softening are most prevalent at the shoulders (outer sides). Sabina should take special precautions to limit vehicle traffic within 1 m from all shoulders. As outlined in Attachment 3, tension cracking along the western side of the airstrip and portions of the roads, specifically by where the future camp pad pond is expected, were noted in 2021 inspections. These are not atypical but should be monitored. • Some tension cracking was seen near the shoulders of the road adjacent to, and that will ultimately become part of, the future Camp Pad Pond. See Attachment 3, Figure (Photo Page) 25. Sabina should consider near term widening and/or additional fill placement (increased thickness) at that camp pad pond road section.
Goose Camp and Plant Area	• No significant development at the camp pad area at the time of the summer 2021 site visit / inspection. • When SRK was on site Sabina was actively working on the plant pad area. There were no tanks constructed on site and no bunded areas built at the time of the 2021 Annual Geotechnical Inspection. • The camp and plant pad area should be revisited in more detail as part of the 2022 Annual Geotechnical Inspection as additional site development activities have resulted since the 2021 inspection and are planned to be further advanced on site in 2022.

Inspection Item	2021 Observations and Recommendations
Quarry	• The quarry was briefly inspected from the entrance. No work was actively being conducted on site at this quarry location at the time of the AGI, and the entrance was blocked with boulders to prevent vehicle access. • No signage however was observed prohibiting entrance to the quarry. Sabina should consider placing additional signage at all access points / entrance points to the quarry.
Camp Pad Pond	• The Camp Pad contact water pond (CWP) would be constructed to capture run-off from the camp pad and stockpile. Containment would be achieved with a lined containment area. The footprint of the CWP was inspected to facilitate discussion regarding the pond designs at this location (currently in progress by Sacre-Davey). Highly fractured rock was observed throughout the footprint in some outcrops extending through the location of the intended dam embankments; these fractures may result in excessive seepage if not accounted for in the design. Fractured rock should be considered when designing the camp pond over the inspected footprint area.
Ground Temperature Cables	• As part of the 2021 AGI, all the available ground temperature data was reviewed. A summary of this data is presented as Attachment 2 for completeness. Generally, the permafrost on site is seen to be 'cold' and supports the approach that permafrost should be focused on being maintained below any section of infrastructure constructed over overburden (less critical for elements built over bedrock). • The last reading for most of the ground temperature cables was noted to have been done in 2015 or earlier. It is suggested that in 2022 Sabina complete a full review of the onsite ground temperature data to check what instrumentation is still functioning. If instrumentation is found to still be functioning, then it is suggested that a current set of measurements be collected from the active locations. • Sabina SRK understands Sabina is in the process of developing a Goose site wide thermal and permafrost monitoring plan. Considerations should then be given by Sabina to incorporate any active ground temperature or thermistor string locations into that overall, in progress, site wide plan.

Attachment 2 Summary of Available Ground Temperature Data

Back River Project
Ground Temperature Data Review

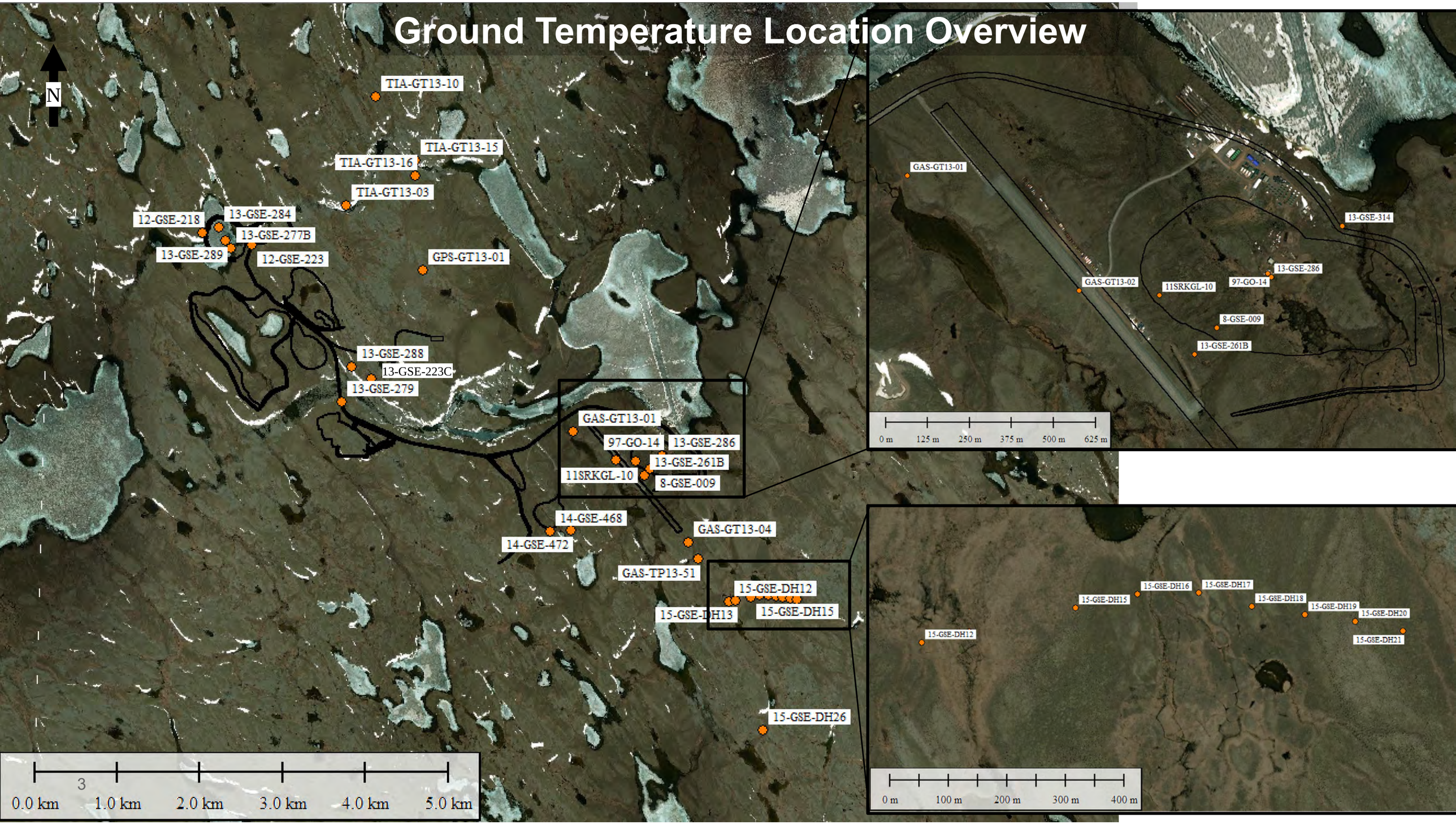
March 2022

srk consulting

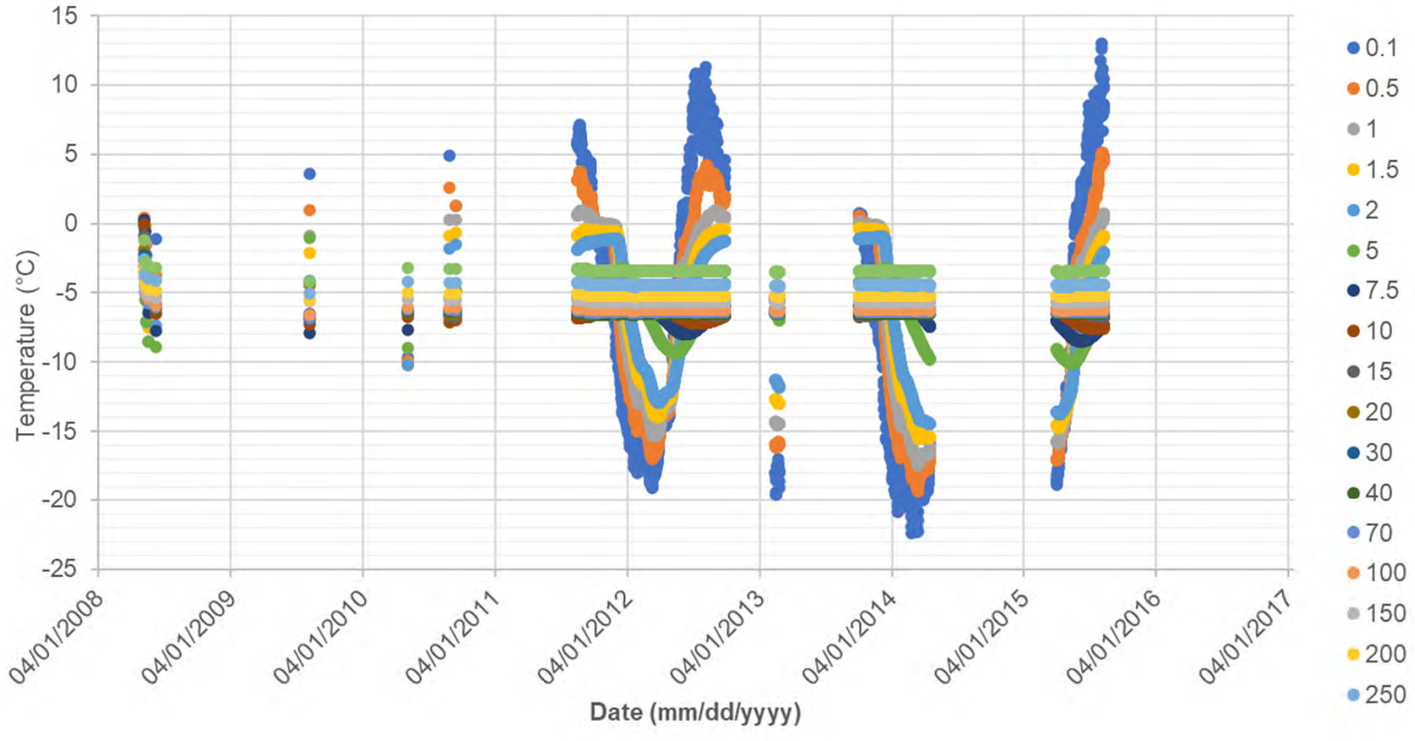
Ground Temperature Site Summary

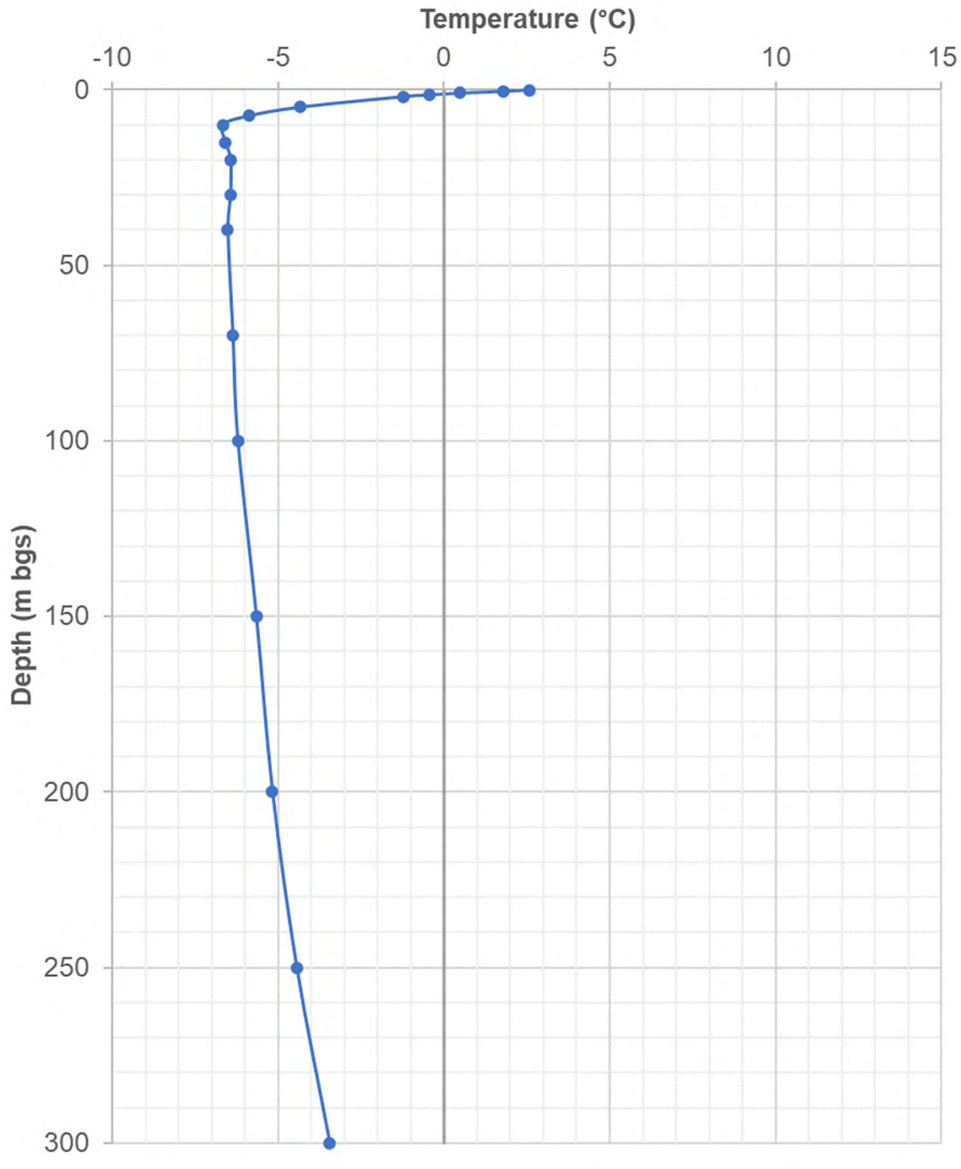
Property	Location	Drillhole ID	Year of Installation	Northing	Easting	GTC Length [m]	Logger Type	Logger ID	From	To	SRK Note
Goose OP/UG	Goose Main	13-GSE-261B	2013	7,269,381	433,838	560	Permanent	DL13	4/28/2013	4/1/2015	Record with lowermost nodes provide valid data
		13-GSE-286	2013	7,269,612	434,066	210	Permanent	DL04	4/9/2013	4/15/2014	Record continuous over period
		13-GSE-314	2013	7,269,764	434,278	210	Permanent	DL02	5/8/2013	11/19/2013	Record continuous over period
		11SRKGL-10	2011	7,269,557	433,734	21.5	Permanent	38910	4/4/2015	4/6/2015	Record of single ground temp. profile
		08-GSE-009	2008	7,269,461	433,904	300	Permanent	41212	5/9/2008	8/13/2015	Record not continuous with data gaps
		97-GO-14	1997	7,269,623	434,056	7	-	-	-	-	No Data
	Umwelt	13-GSE-288	2013	7,270,686	430,310	560	Permanent	DL03	5/9/2013	10/26/2014	Record shows nodes not functioning properly
		13-GSE-279	2013	7,270,260	430,189	560	Permanent	DL12	4/18/2013	4/3/2015	Record below 110 mbgs nodes functioning, nodes above largely damaged
		12-GSE-233C	2012	7,270,546	430,544	565	Permanent	Q23936_Logger3			
	Llama	13-GSE-277B	2013	7,272,125	428,852	265	Permanent	DL04 - removed	4/3/2013	11/19/2013	Record nearly continuous over period, GTC damaged during 2013 breakup
		13-GSE-284	2013	7,272,370	428,710	390	Permanent	DL05 - removed	4/12/2013	5/22/2013	GTC damaged during 2013 breakup
		13-GSE-289	2013	7,272,218	428,790	660	Permanent	DL06 - removed	5/4/2013	6/14/2013	Data not reliable GTC damaged during 2013 breakup
		12-GSE-218	2012	7,272,301	428,508	390	Permanent	Q23420_Logger2	10/12/2012	11/23/2014	Record with valid measurements from 7/19/2014 to 11/23/2014
		12-GSE-223	2012	7,272,161	429,104	285	Permanent	Q23420_Logger1	7/30/2012	4/19/2014	Record valid up to 4/19/2014
		12-GSE-223C							8/29/2012	8/5/2015	Record not continuous with data gaps
	Echo	14-GSE-468	2014	7,268,705	432,707	375	Permanent	DL8001453	7/20/2014	4/2/2015	Record continuous over period
		14-GSE-472	2014	7,268,724	432,957	375	Permanent	DL06	7/20/2014	4/2/2015	Record nearly continuous over period
Goose Infrastructure	OLD TIA	TIA-GT13-03	2013	7,272,636	430,246	17	Permanent	DL8001317	5/26/2013	12/4/2013	Record nearly continuous over period
		TIA-GT13-10	2013	7,273,951	430,604	17	Permanent	DL8001318	5/27/2013	5/6/2014	Record with some data gaps
		TIA-GT13-15	2013	7,273,180	431,079	17	Permanent	DL8001320	5/27/2013	5/6/2014	Record continuous over period
		TIA-GT13-16	2013	7,272,989	431,079	17	Permanent	DL8001319	5/27/2013	4/30/2014	Record nearly continuous over period
	Goose Airstrip	GAS-GT13-01	2013	7,269,913	432,983	17	Permanent	TBD	5/27/2013	5/6/2014	Record continuous over period
		GAS-GT13-02	2013	7,269,571	433,495	27	Permanent	DL8001315	5/25/2013	4/2/2015	Record nearly continuous over period
		GAS-GT13-04	2013	7,268,574	434,367	27	-	-	5/25/2013	6/19/2014	Record has limited number of manual measurements over period
		GAS-TP13-51	2013	7,268,379	434,496	3	-	-	8/27/2013	6/19/2014	Record has limited number of manual measurements over period
	Plant Site	GPS-GT13-01	2013	7,271,857	431,171	17	-	-	10/3/2013	6/19/2014	Record has one valid temp profile
	TSF	15-GSE-DH12	2015	7,267,857	434,863	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH13	2015	7,267,876	434,944	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH15	2015	7,267,916	435,125	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH16	2015	7,267,940	435,231	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH17	2015	7,267,942	435,336	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH18	2015	7,267,919	435,427	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH19	2015	7,267,905	435,517	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH20	2015	7,267,893	435,603	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH21	2015	7,267,877	435,685	15	-	-	4/11/2015	8/14/2015	Record has several manual measurements
		15-GSE-DH26	2015	7,266,311	435,268	15	-	-	4/17/2015	8/16/2015	Record has two manual measurements

Ground Temperature Location Overview

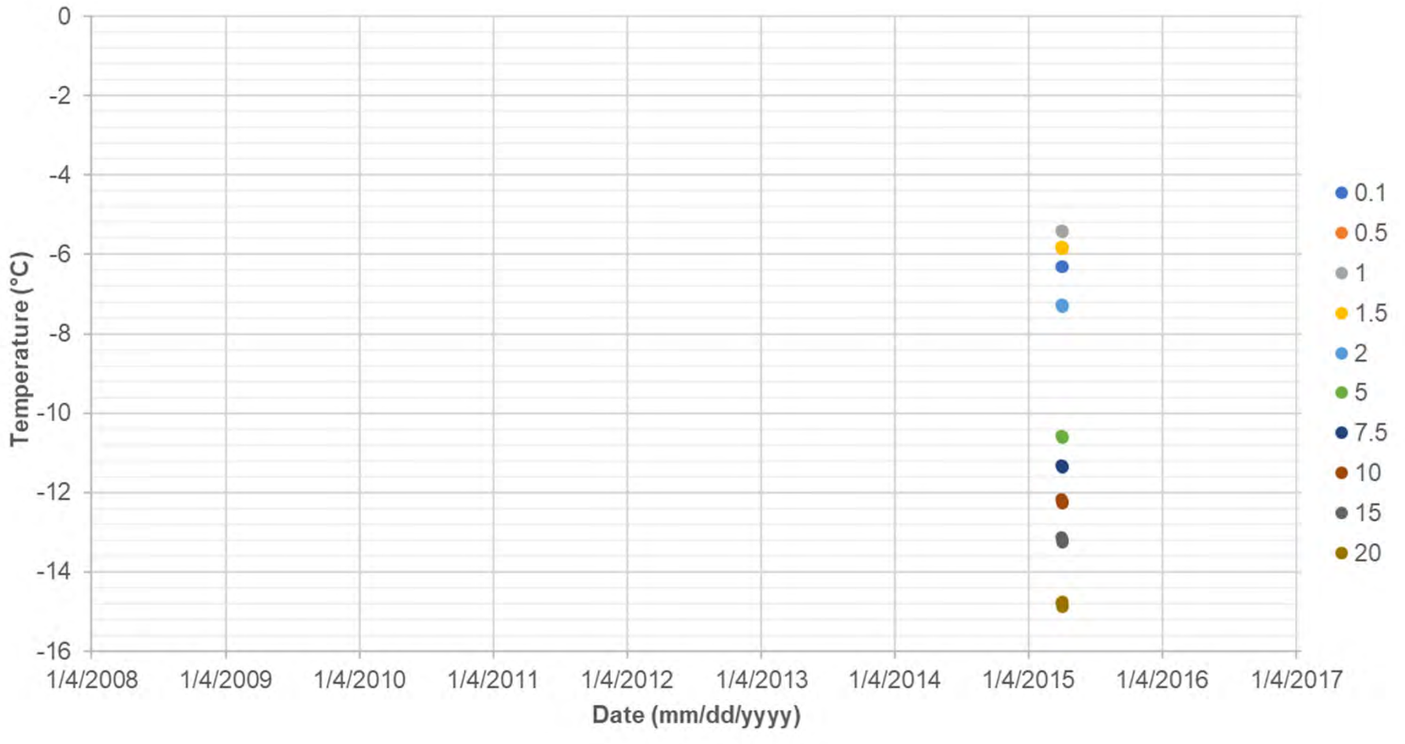


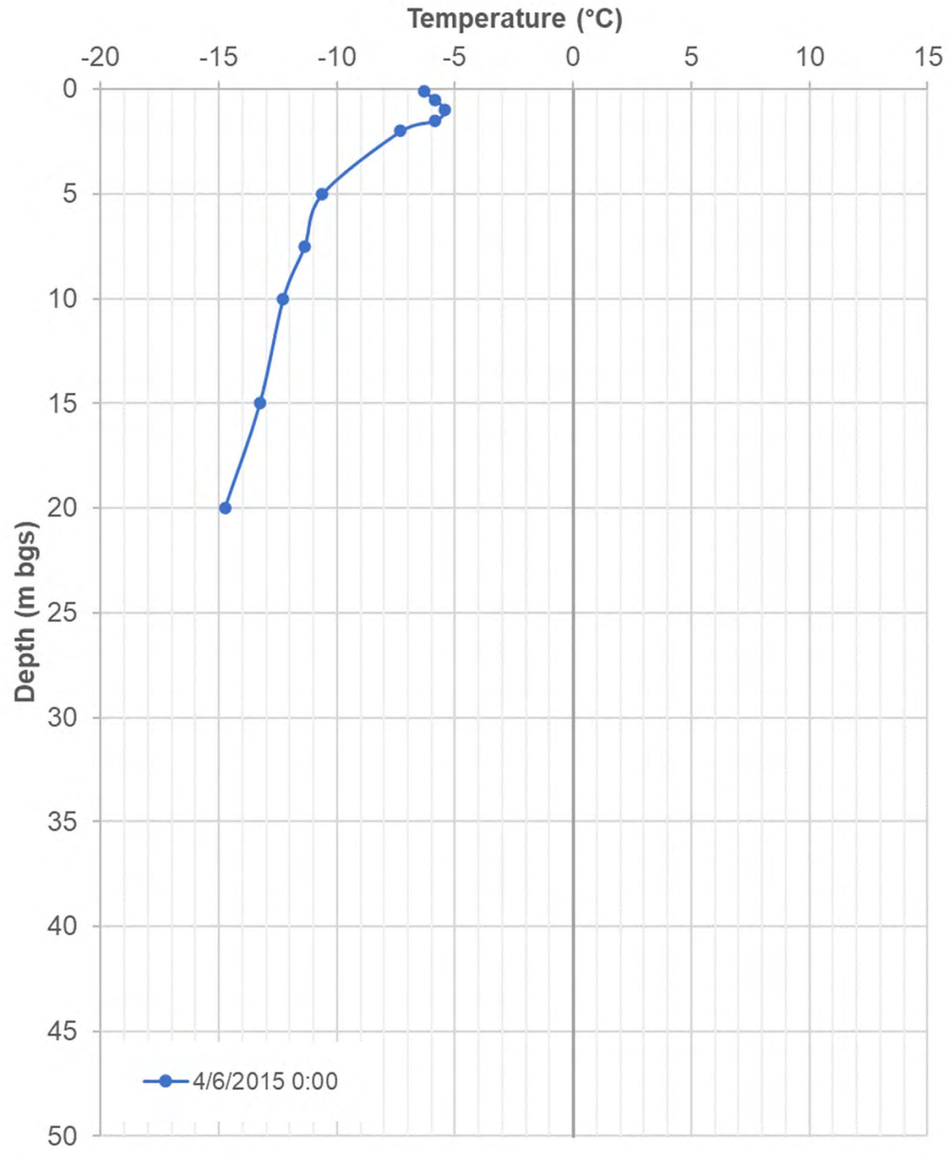
08-GSE-009


Temperature (°C)
15
10
5
0
-5
-10
-15
-20
-25
04/01/2008
04/01/2009
04/01/2010
04/01/2011
04/01/2012
04/01/2013
04/01/2014
04/01/2015
04/01/2016
04/01/2017
Date (mm/dd/yyyy)
0.1
0.5
1
1.5
2
5
7.5
10
15
20
30
40
70
100
150
200
250

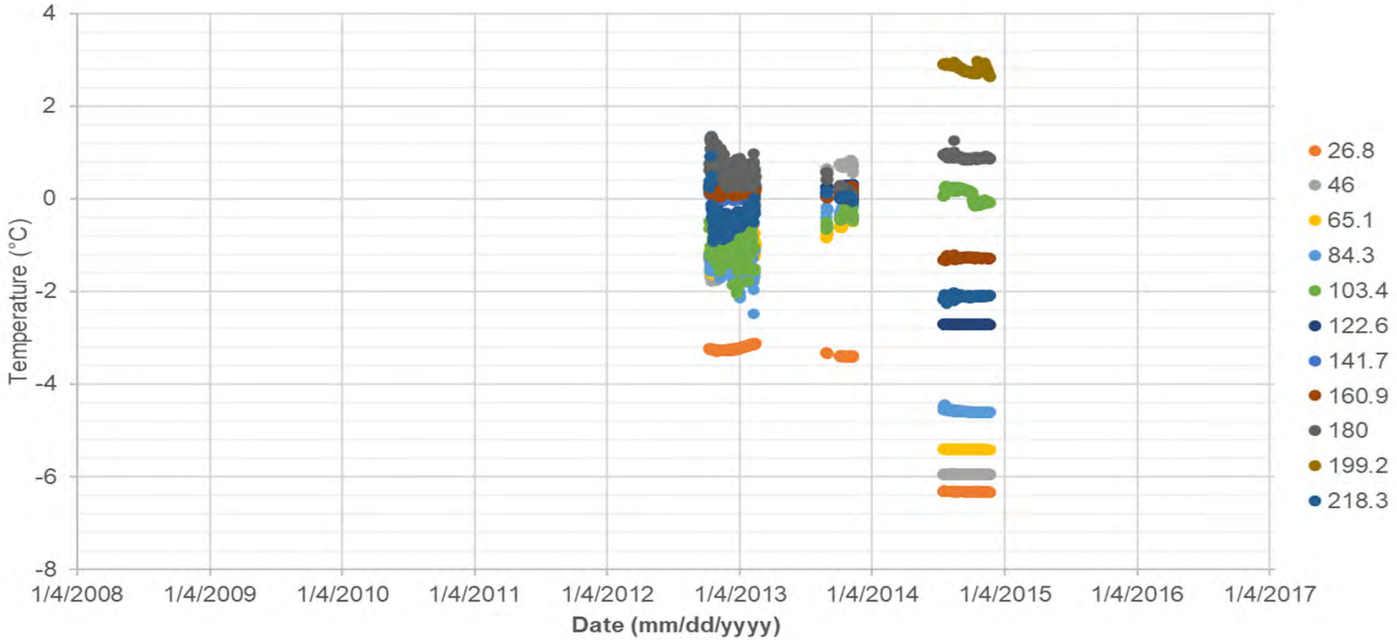

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)

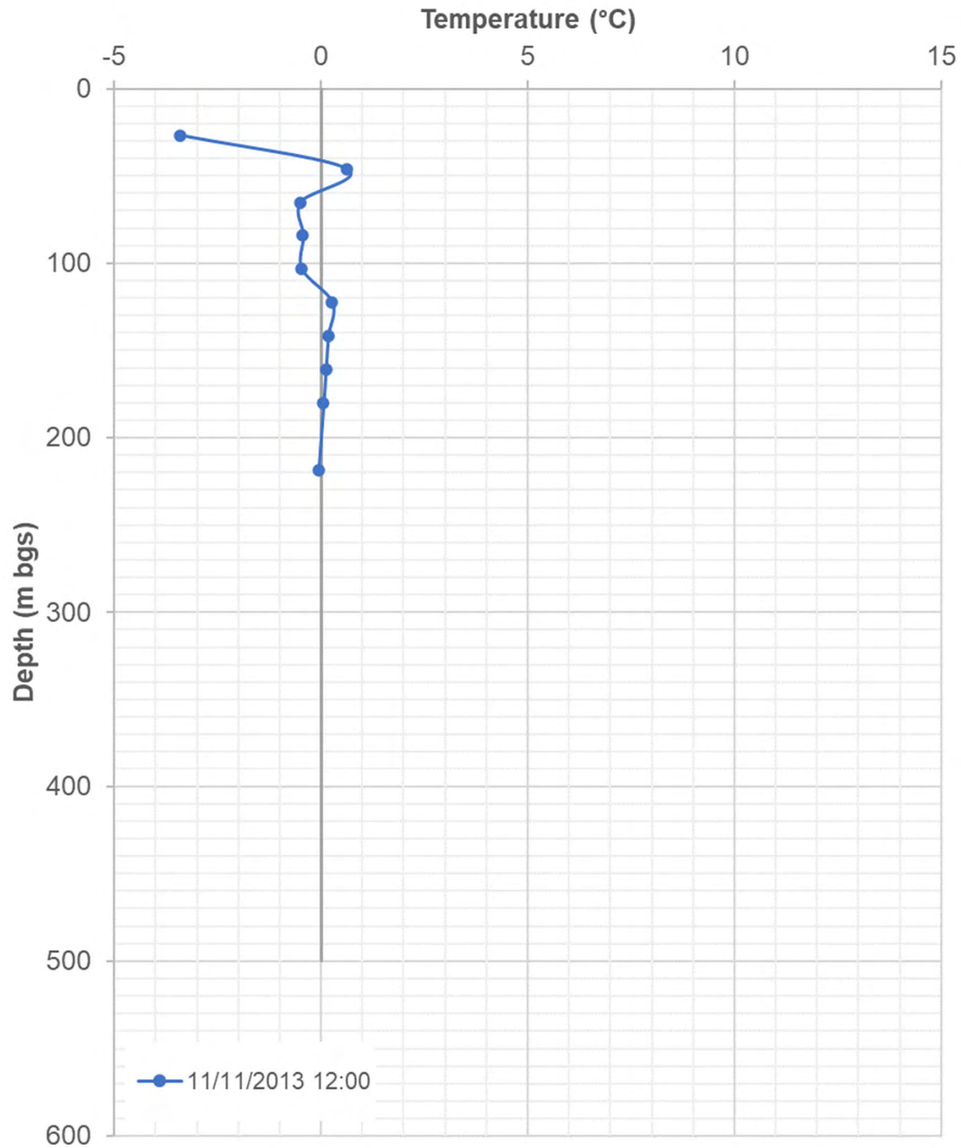
11SRKGL-10


Temperature (°C)
0
-2
-4
-6
-8
-10
-12
-14
-16
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
0.1
0.5
1
1.5
2
5
7.5
10
15
20

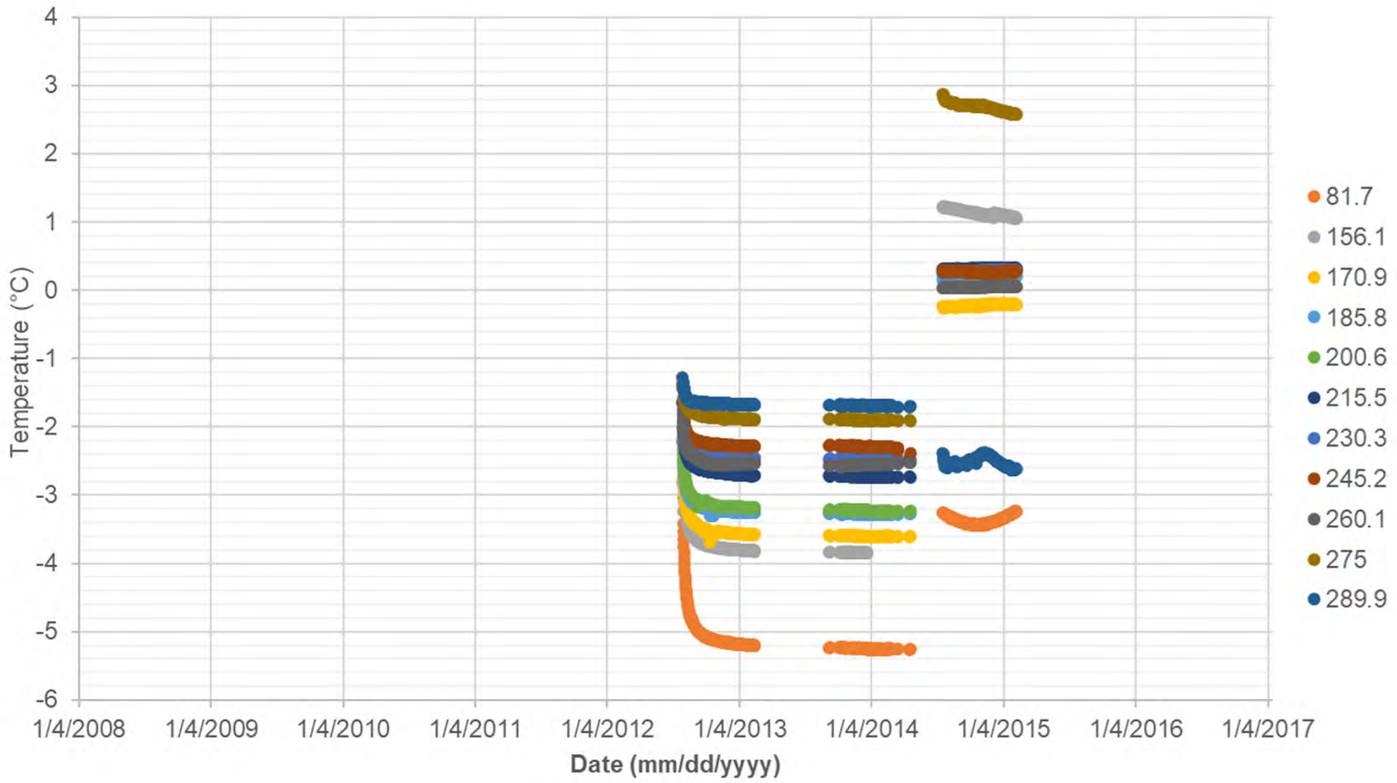

Temperature (°C)
-20
-15
-10
-5
0
5
10
15
Depth (m bgs)
0
5
10
15
20
25
30
35
40
45
50
4/6/2015 0:00

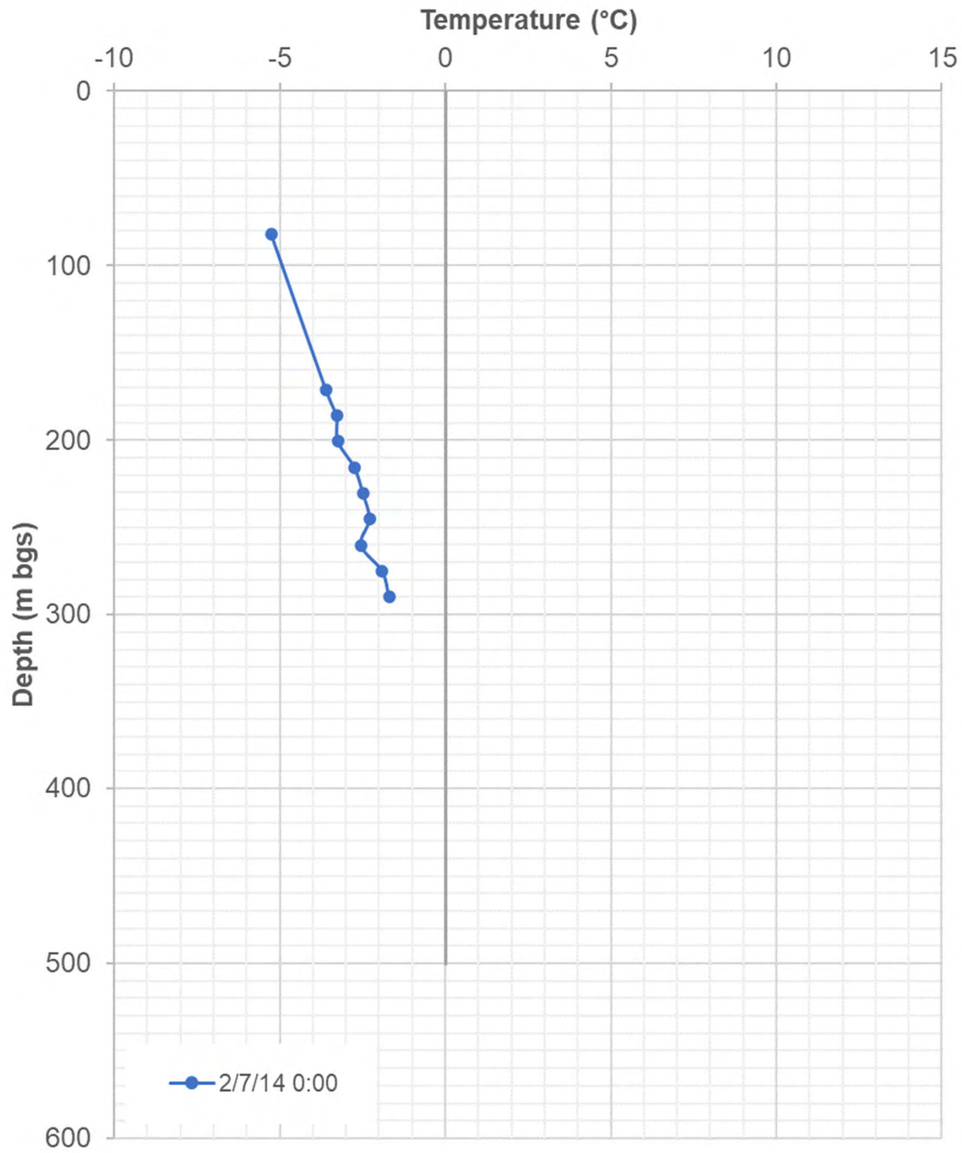
12-GSE-218


Temperature (°C)
4
2
0
-2
-4
-6
-8
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
26.8
46
65.1
84.3
103.4
122.6
141.7
160.9
180
199.2
218.3

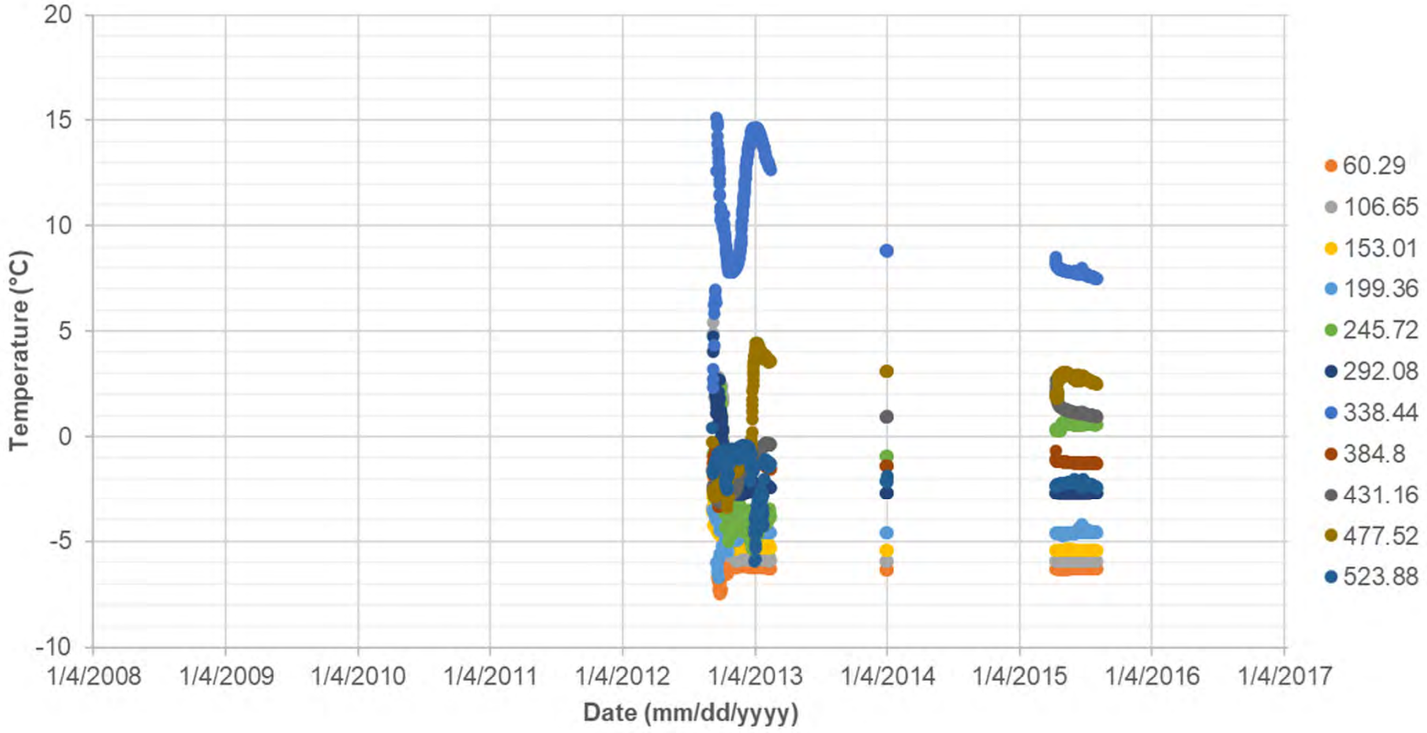

Temperature (°C)
-5
0
5
10
15
Depth (m bgs)
0
100
200
300
400
500
600
11/11/2013 12:00

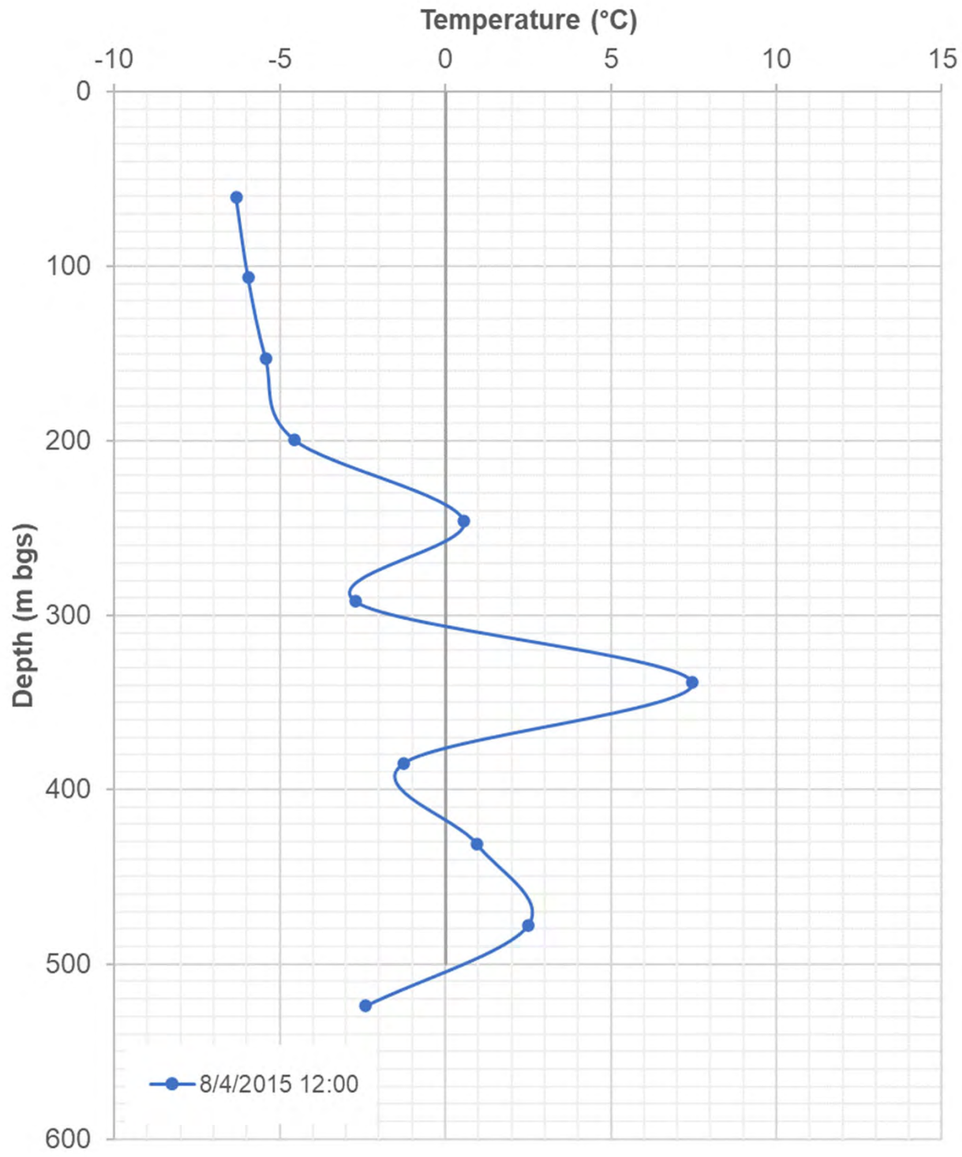
12-GSE-223


Temperature (°C)
4
3
2
1
0
-1
-2
-3
-4
-5
-6
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
81.7
156.1
170.9
185.8
200.6
215.5
230.3
245.2
260.1
275
289.9

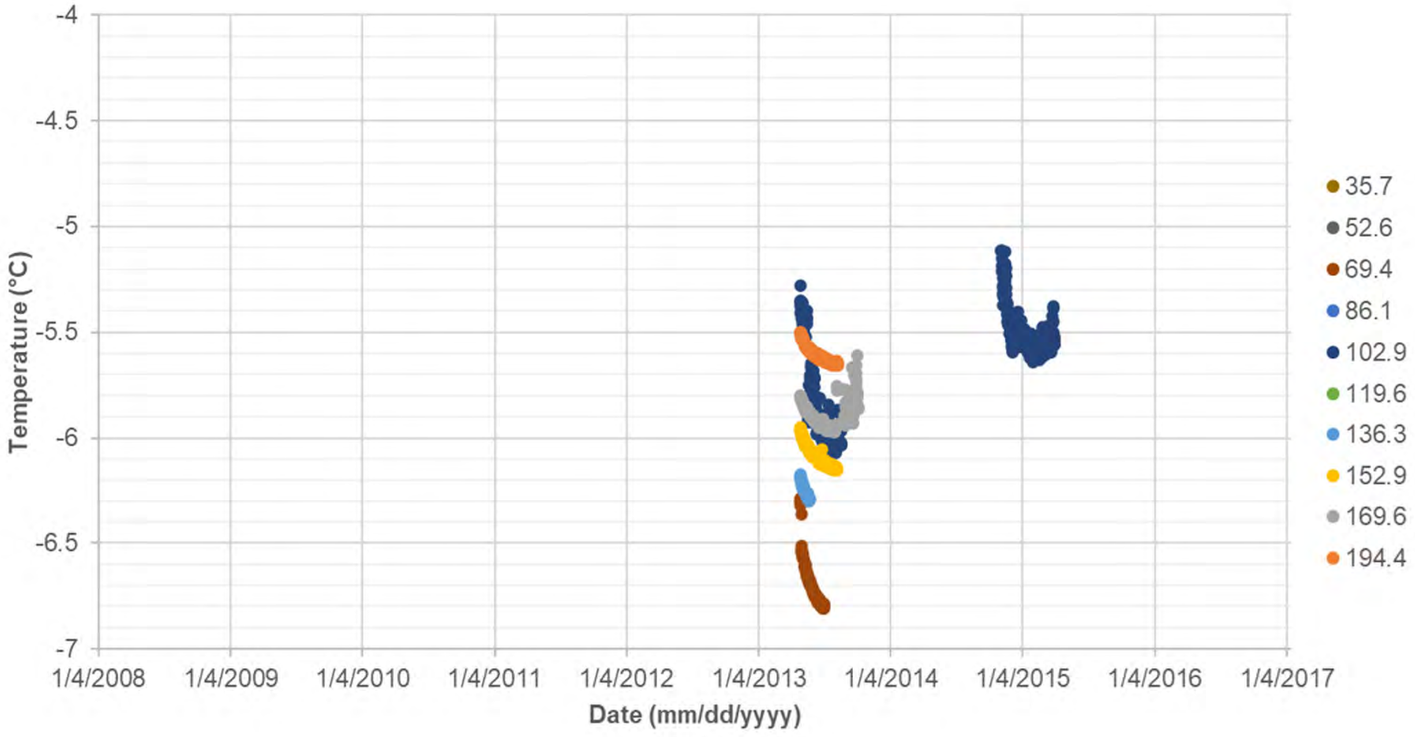

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
100
200
300
400
500
600
2/7/14 0:00

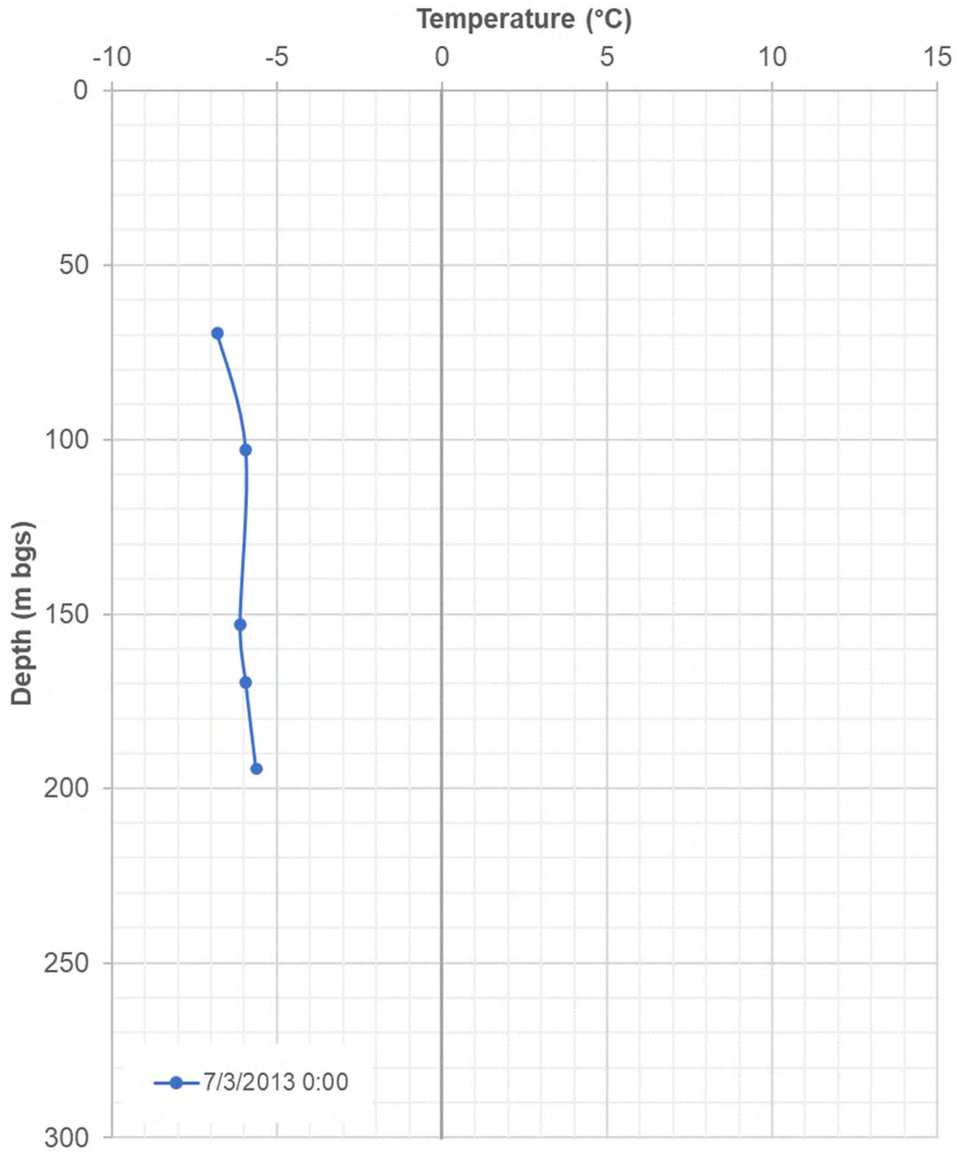
12-GSE-223C


20
15
10
5
0
-5
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
60.29
106.65
153.01
199.36
245.72
292.08
338.44
384.8
431.16
477.52
523.88

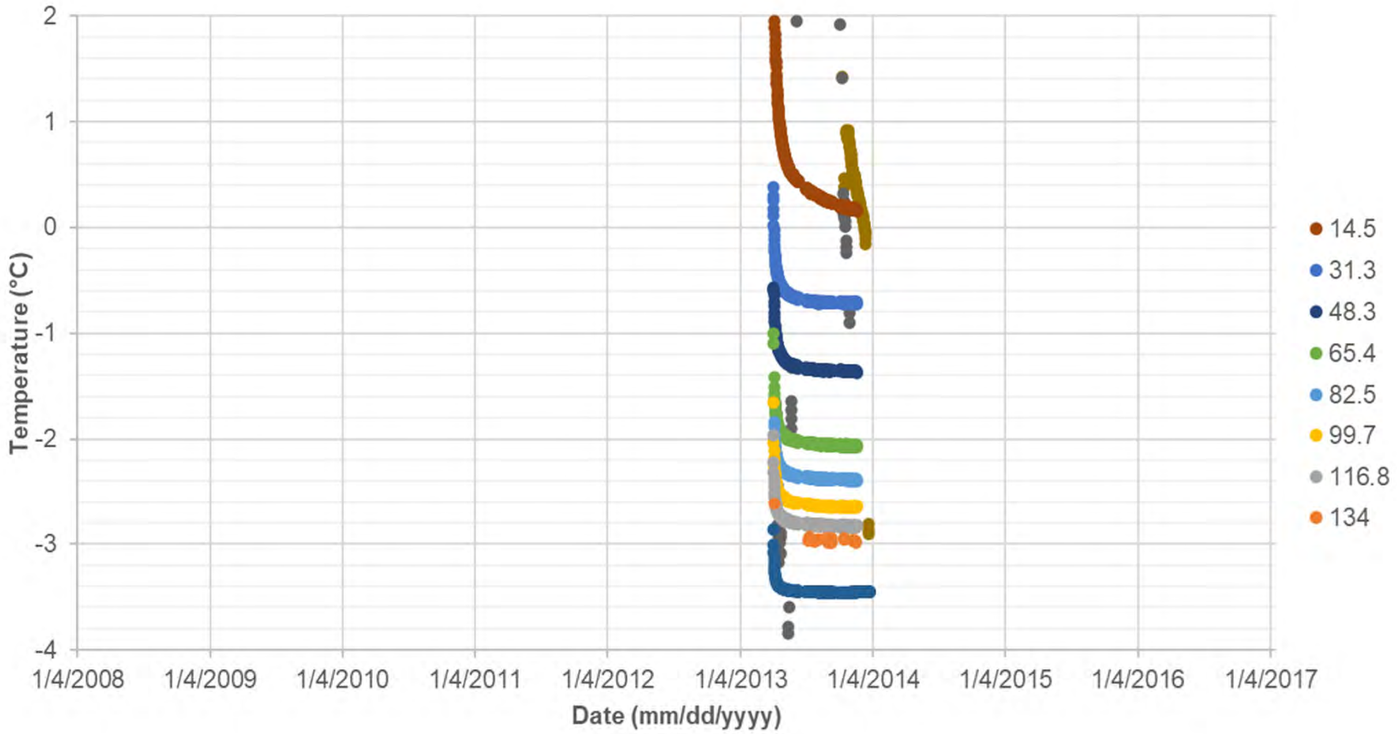

Temperature (°C)
-10
-5
0
5
10
15
0
100
200
300
400
500
600
Depth (m bgs)
8/4/2015 12:00

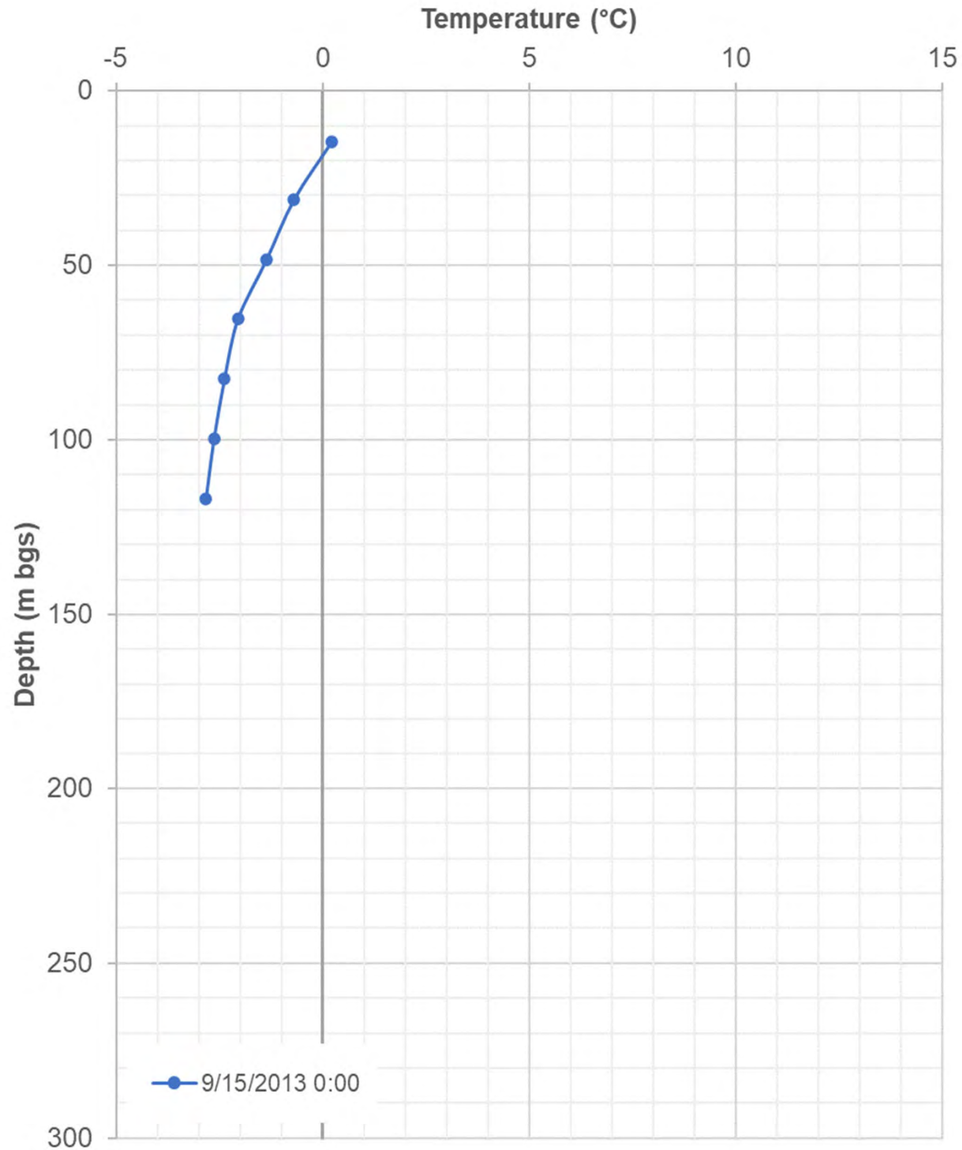
13-GSE-261B


-4
-4.5
-5
-5.5
-6
-6.5
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
35.7
52.6
69.4
86.1
102.9
119.6
136.3
152.9
169.6
194.4

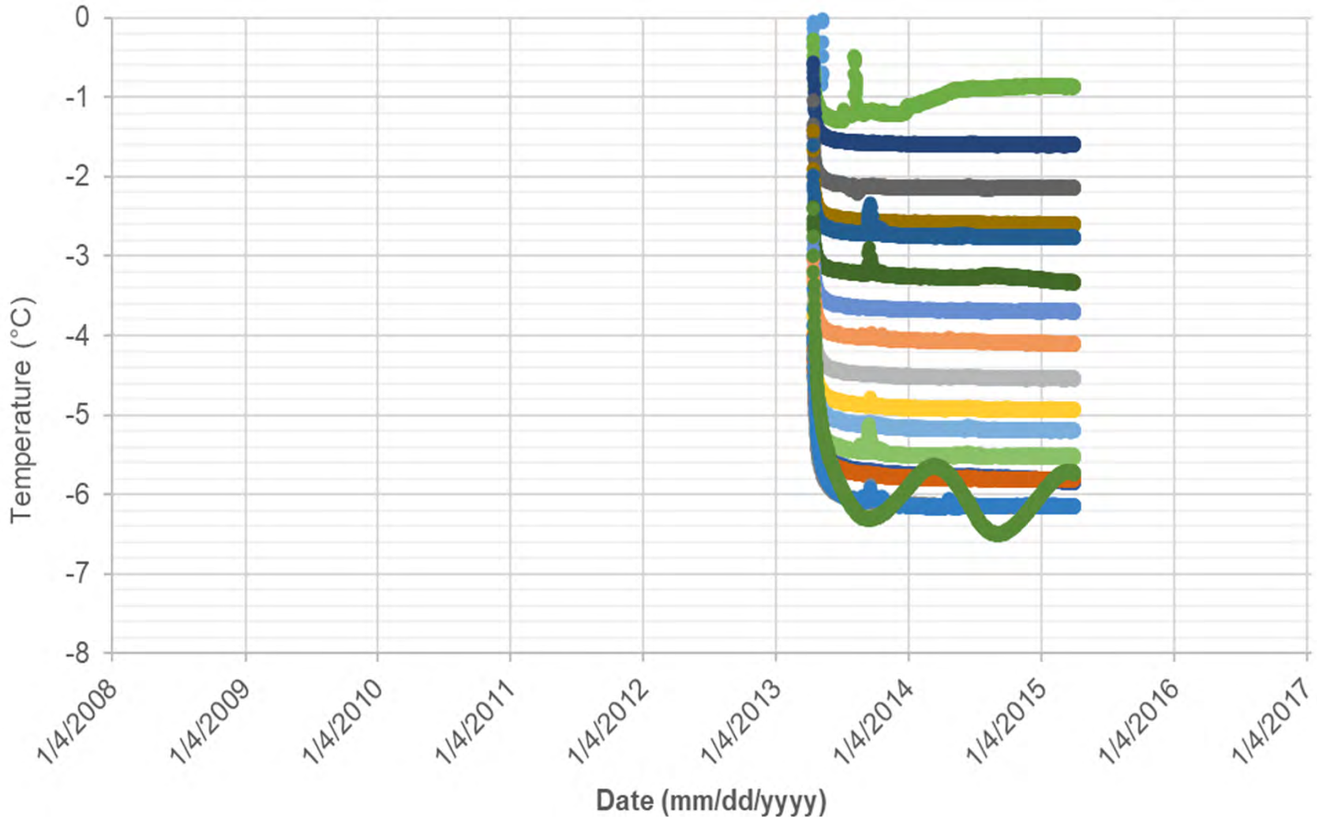

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
7/3/2013 0:00

13-GSE-277B

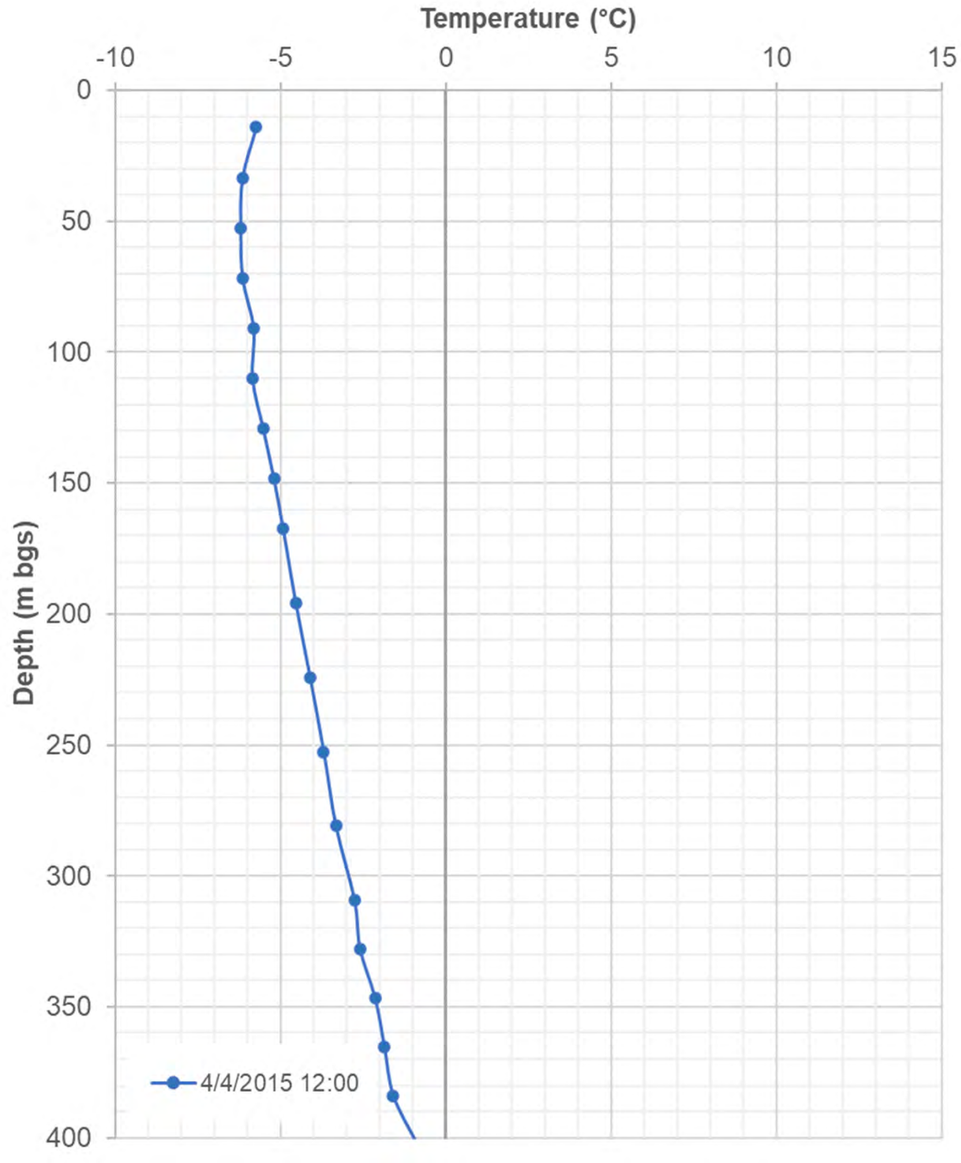

2
1
0
-1
-2
-3
-4
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
14.5
31.3
48.3
65.4
82.5
99.7
116.8
134


Temperature (°C)
-5
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
9/15/2013 0:00

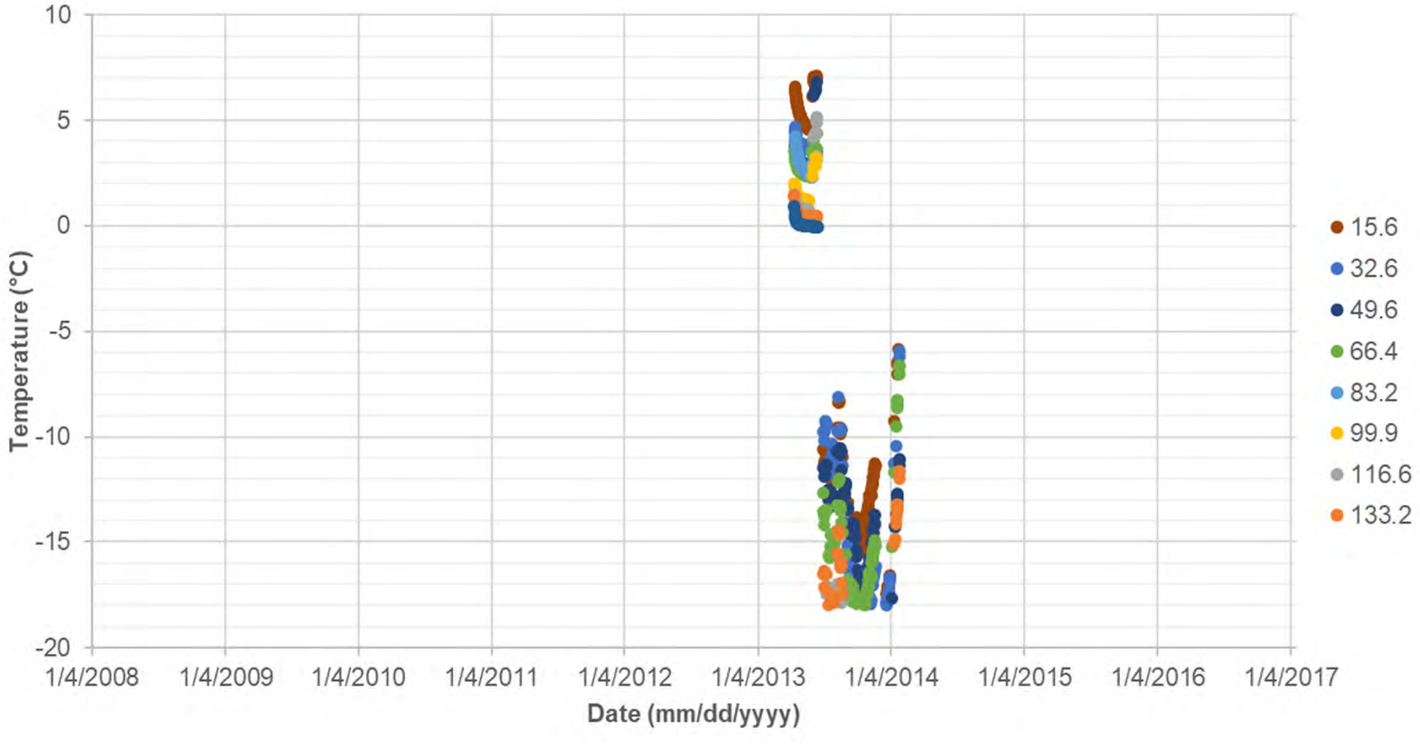
13-GSE-279

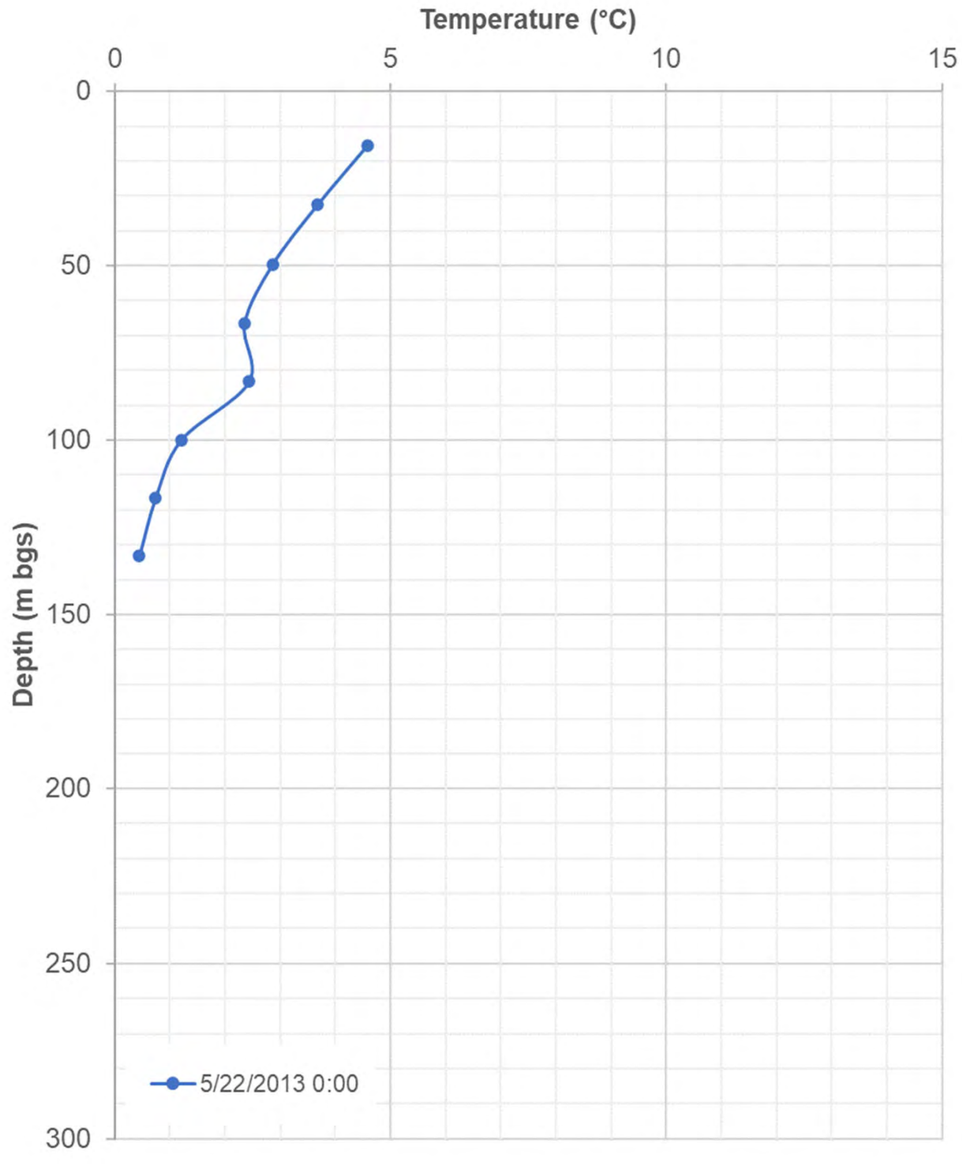

0
-1
-2
-3
-4
-5
-6
-7
-8
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


493.8
475.8
457.7
439.4
421
402.5
383.9
346.7
327.9
309.2
280.9
252.6
224.2
195.8
167.3
148.3
129.2
110.1
91
71.8
33.4
14.2

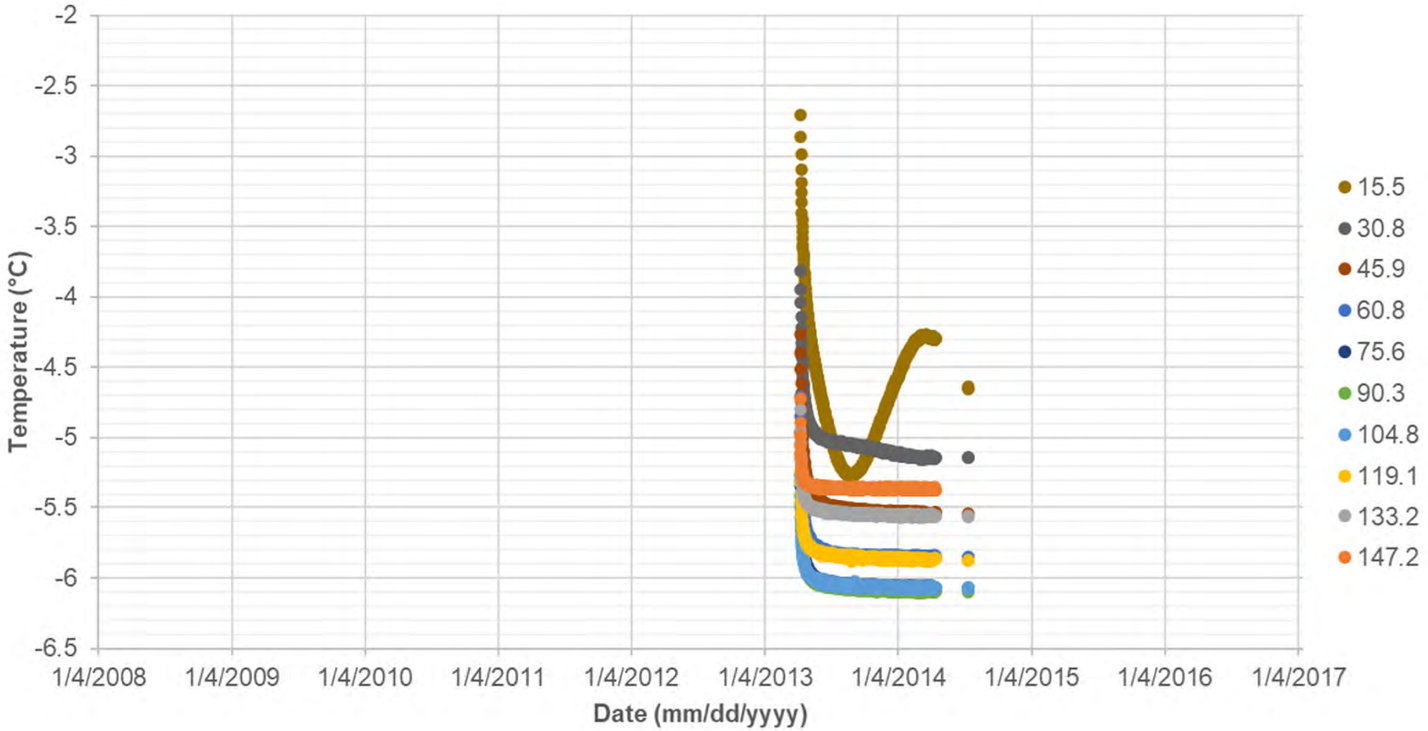

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/4/2015 12:00

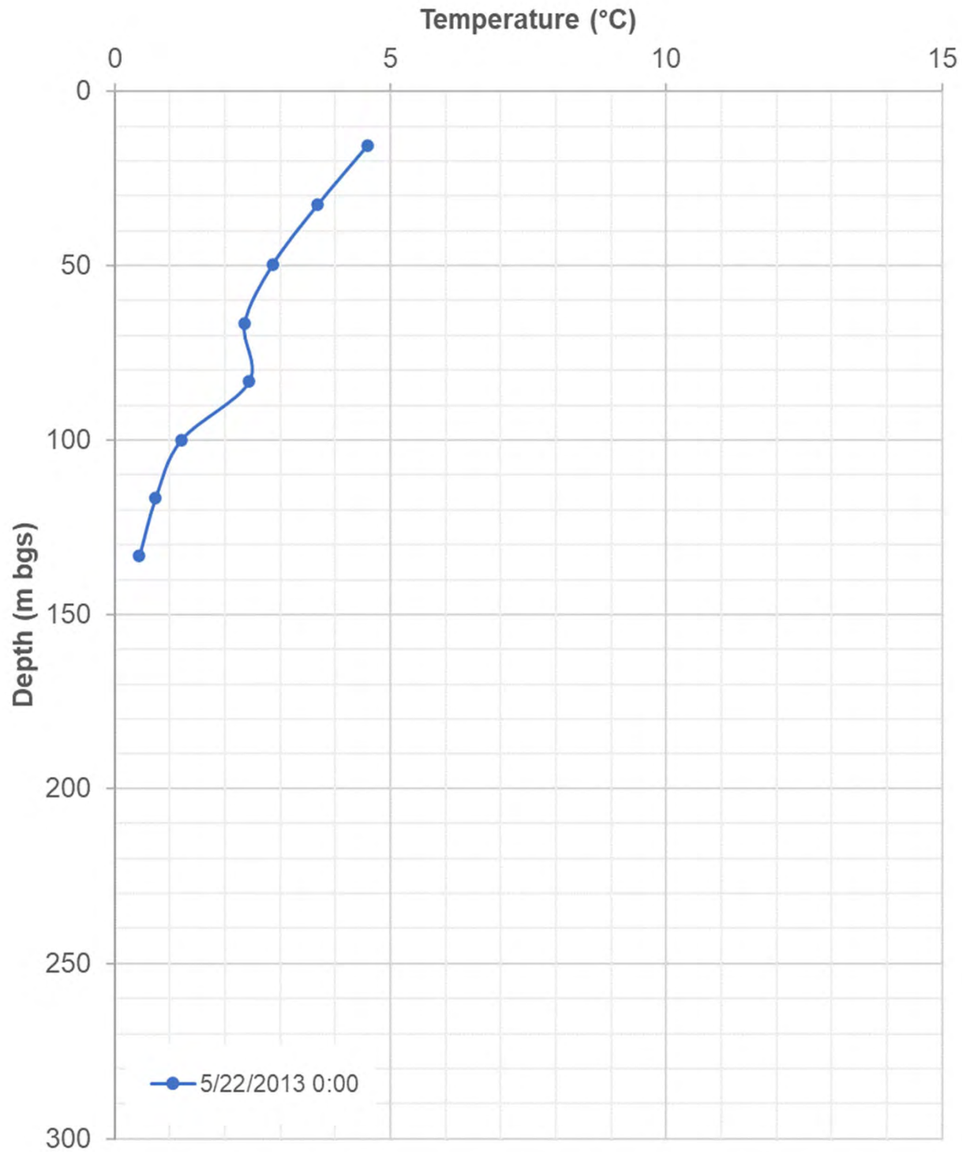
13-GSE-284


10
5
0
-5
-10
-15
-20
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.6
32.6
49.6
66.4
83.2
99.9
116.6
133.2

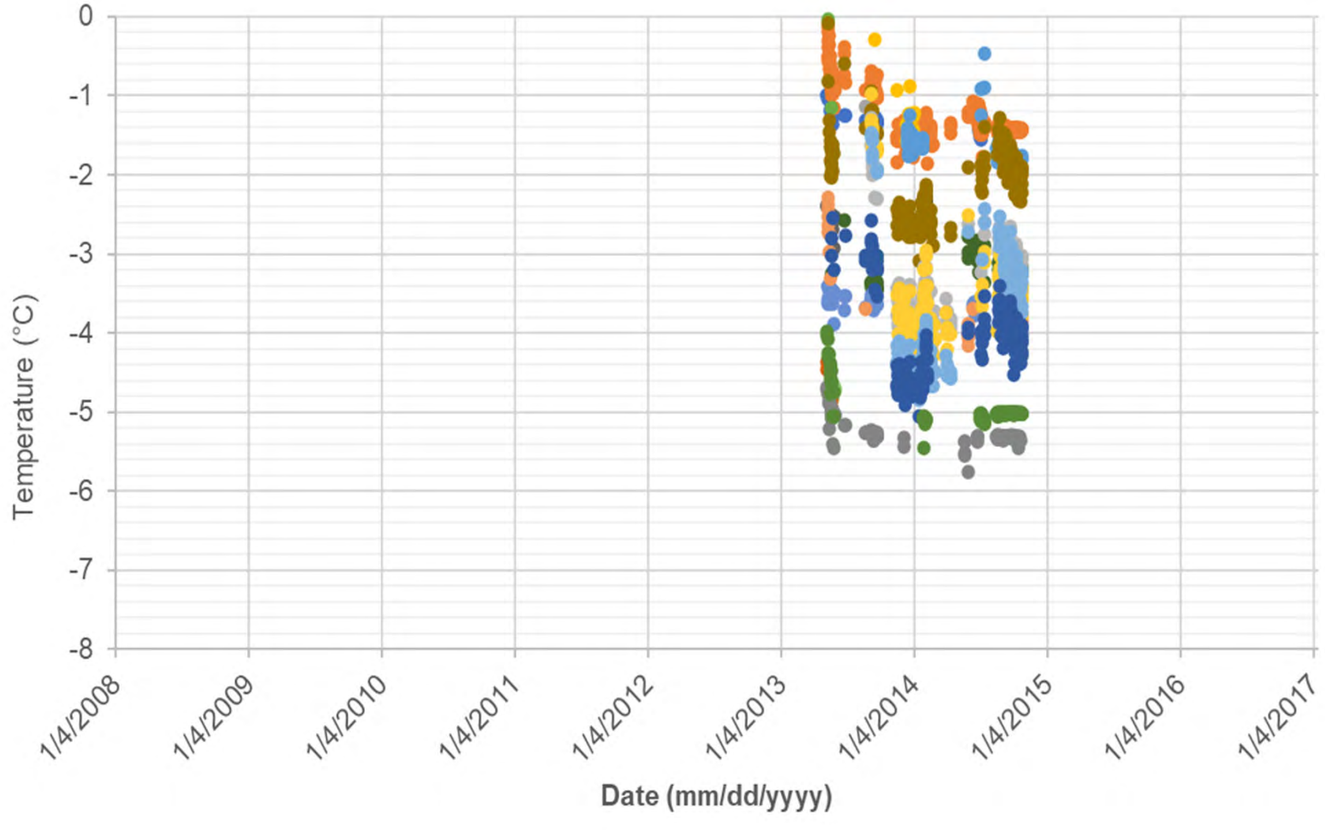

Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
5/22/2013 0:00

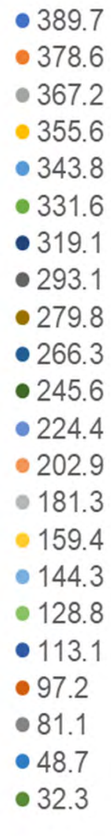
13-GSE-286

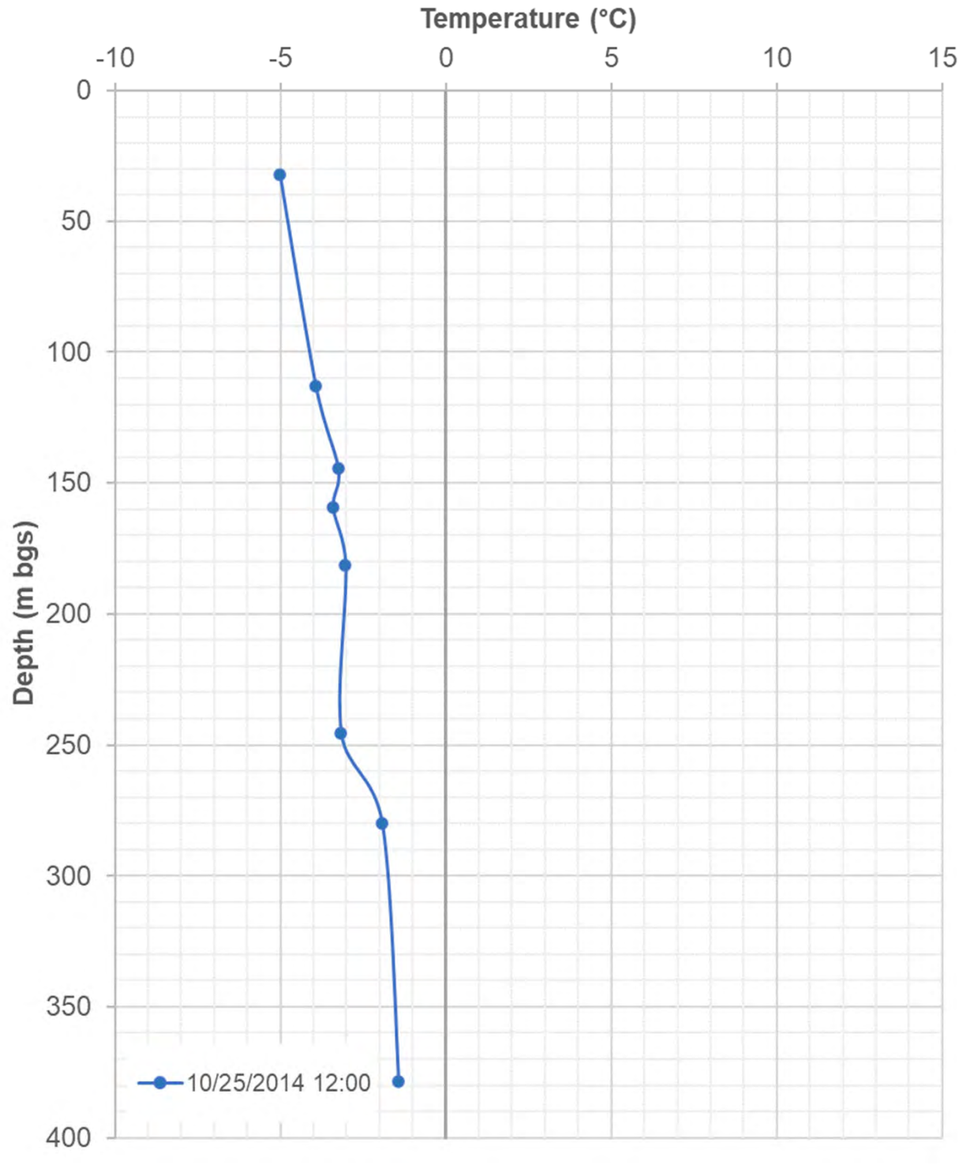

-2
-2.5
-3
-3.5
-4
-4.5
-5
-5.5
-6
-6.5
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
30.8
45.9
60.8
75.6
90.3
104.8
119.1
133.2
147.2


Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
Depth (m bgs)
5/22/2013 0:00

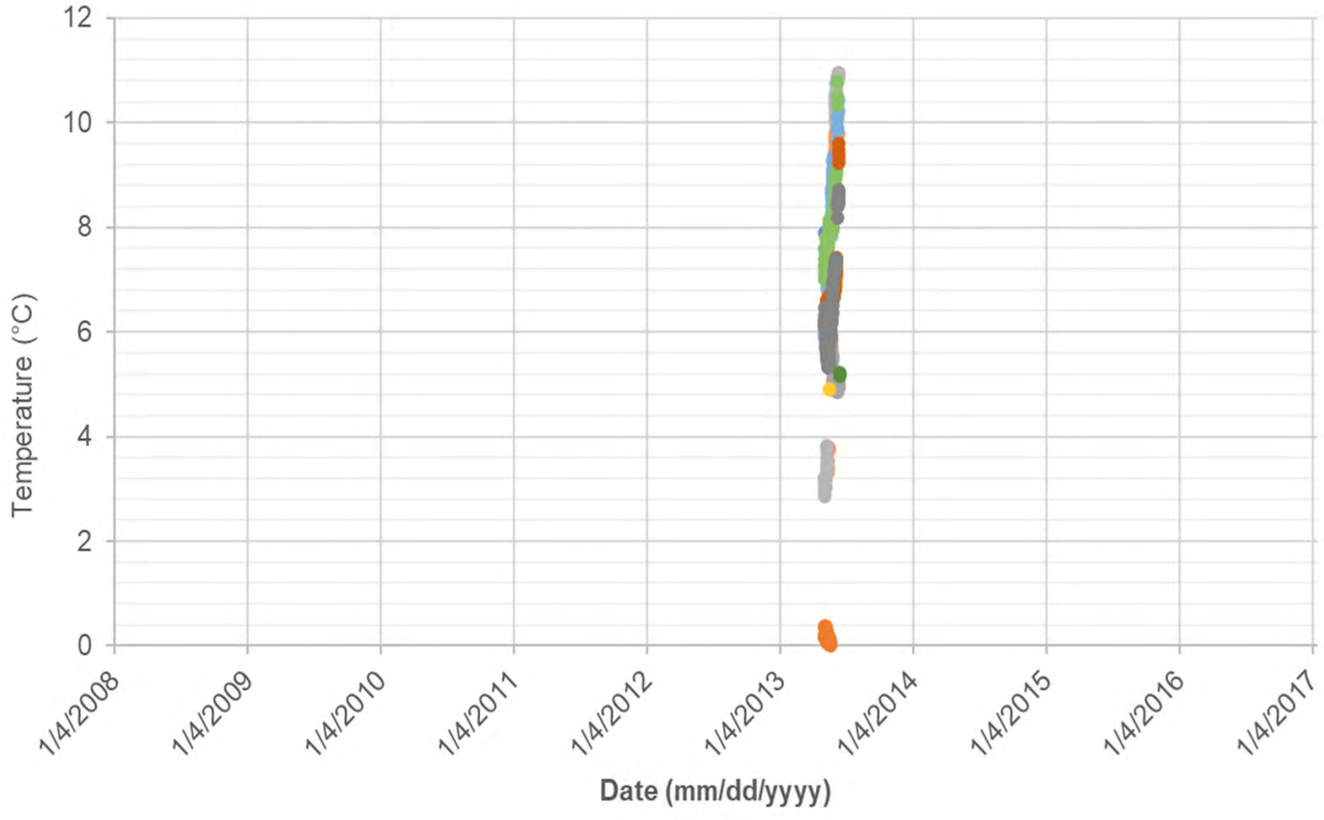
13-GSE-288

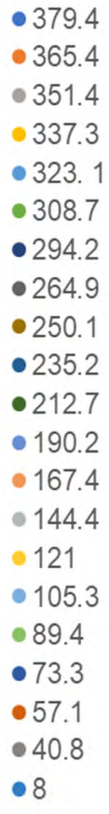

0
-1
-2
-3
-4
-5
-6
-7
-8
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)

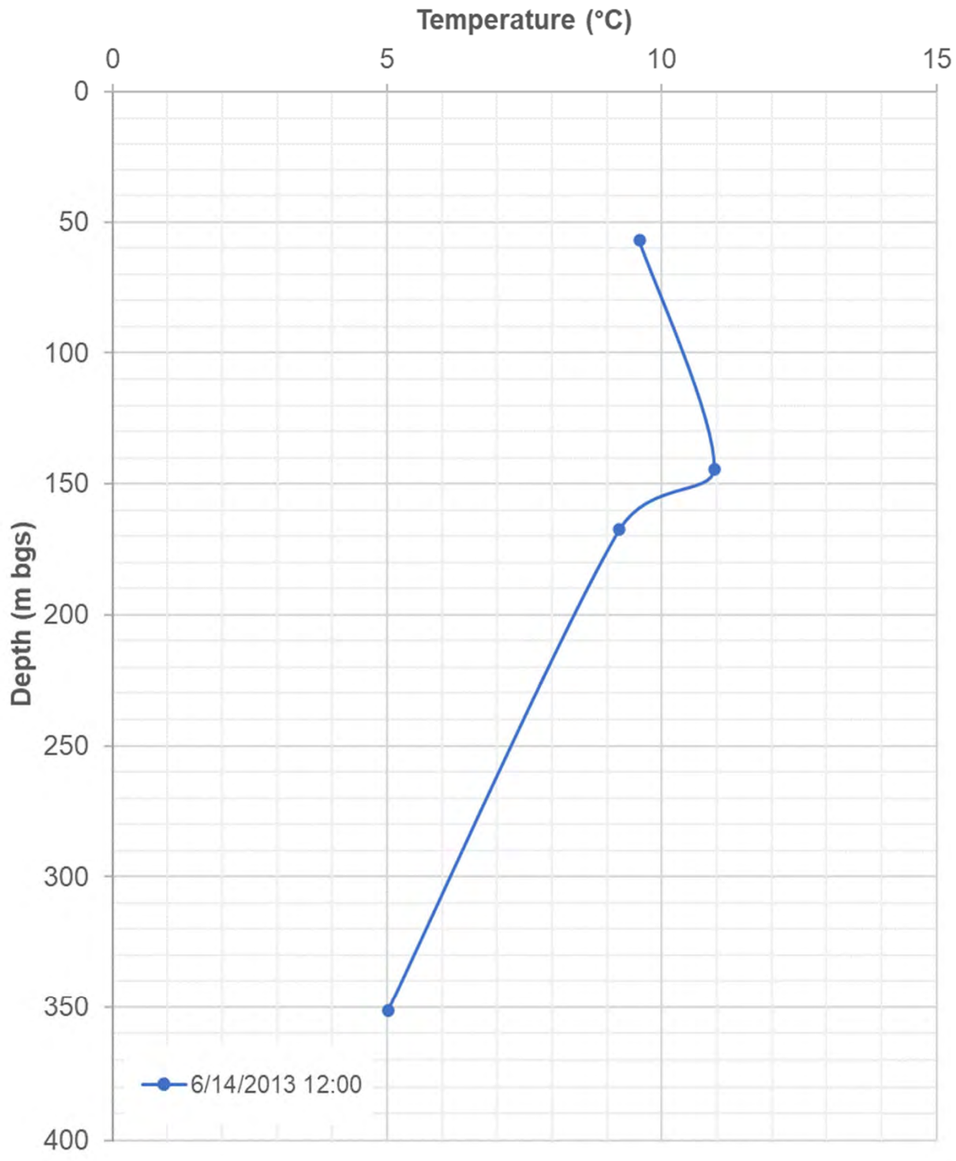

389.7
378.6
367.2
355.6
343.8
331.6
319.1
293.1
279.8
266.3
245.6
224.4
202.9
181.3
159.4
144.3
128.8
113.1
97.2
81.1
48.7
32.3


Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
10/25/2014 12:00

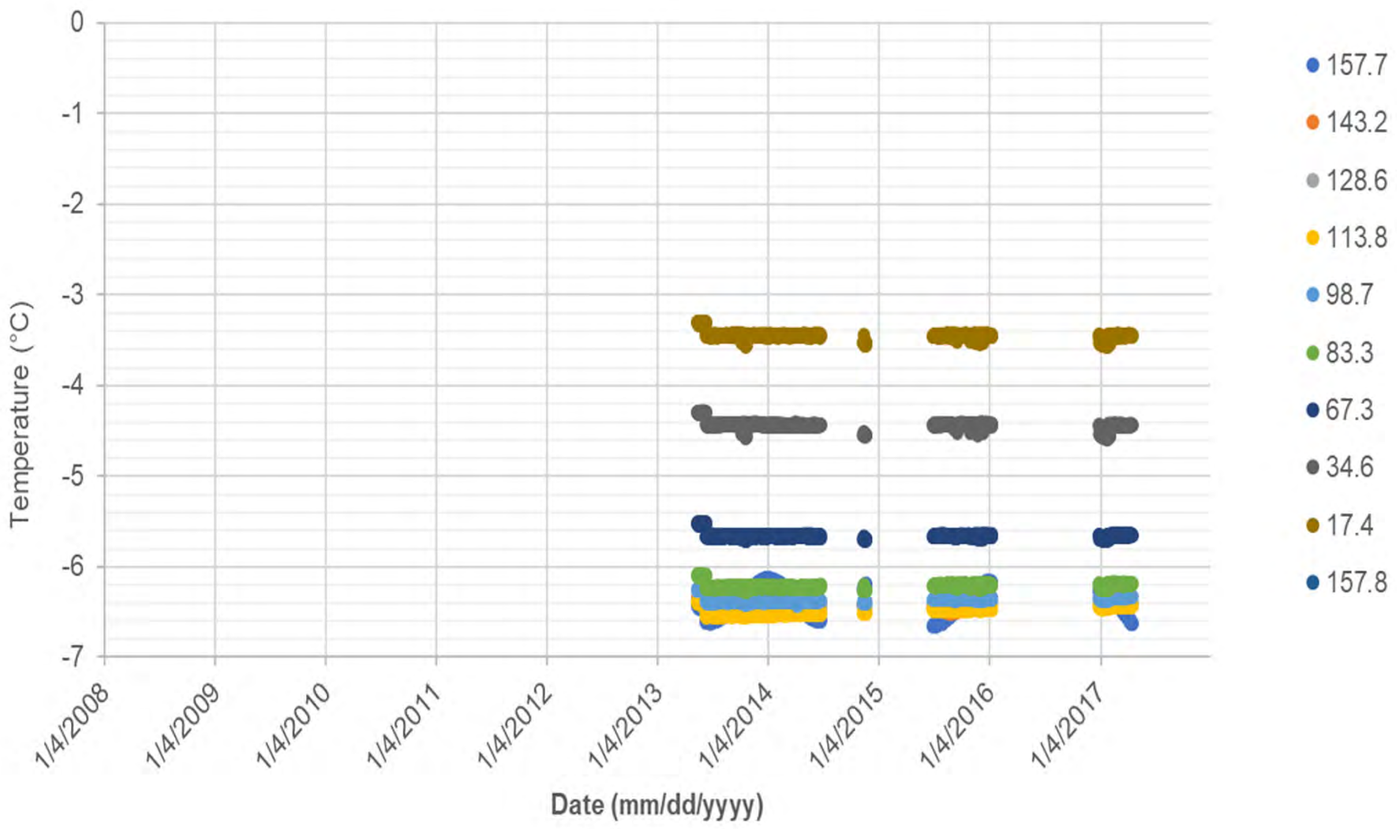
13-GSE-289

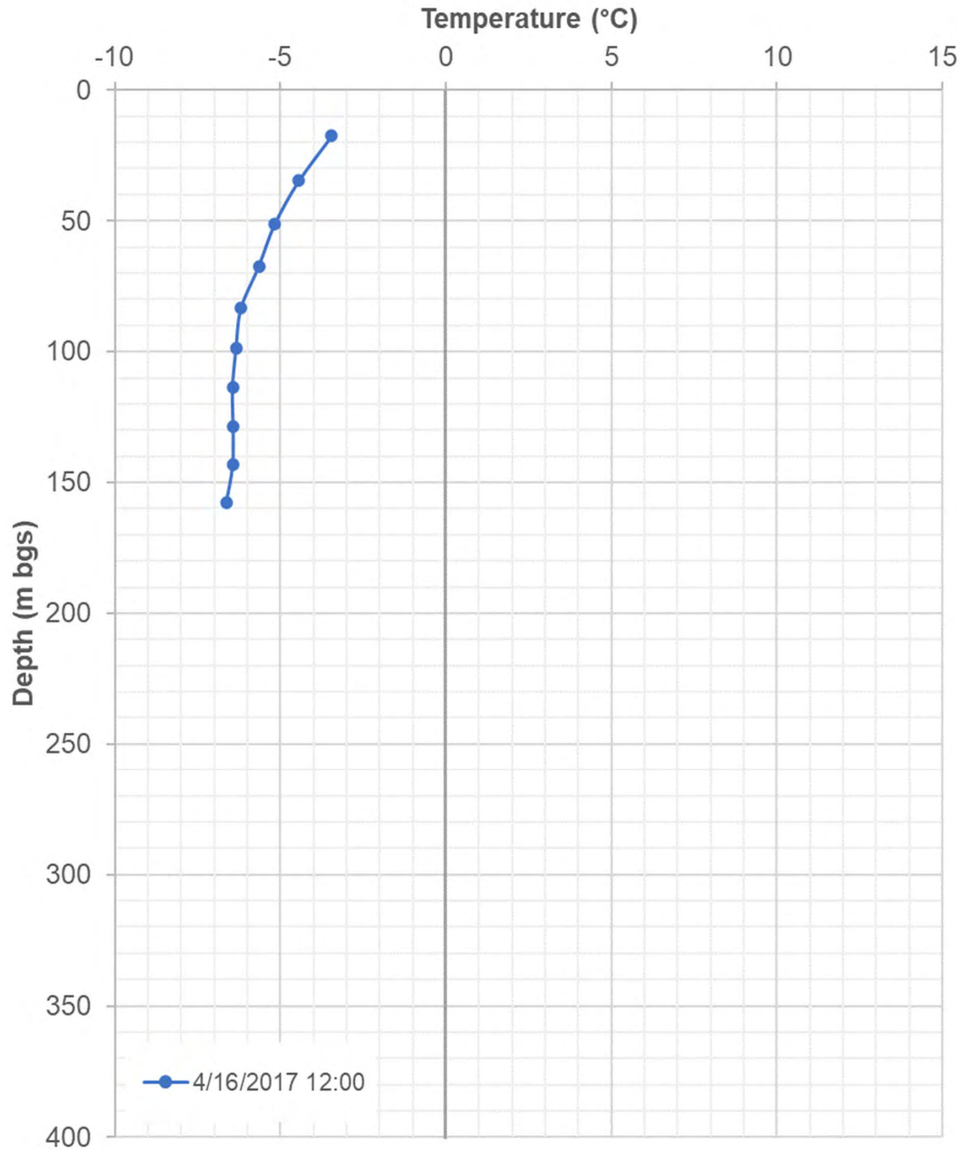

Temperature (°C)
12
10
8
6
4
2
0
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


379.4
365.4
351.4
337.3
323. 1
308.7
294.2
264.9
250.1
235.2
212.7
190.2
167.4
144.4
121
105.3
89.4
73.3
57.1
40.8
8

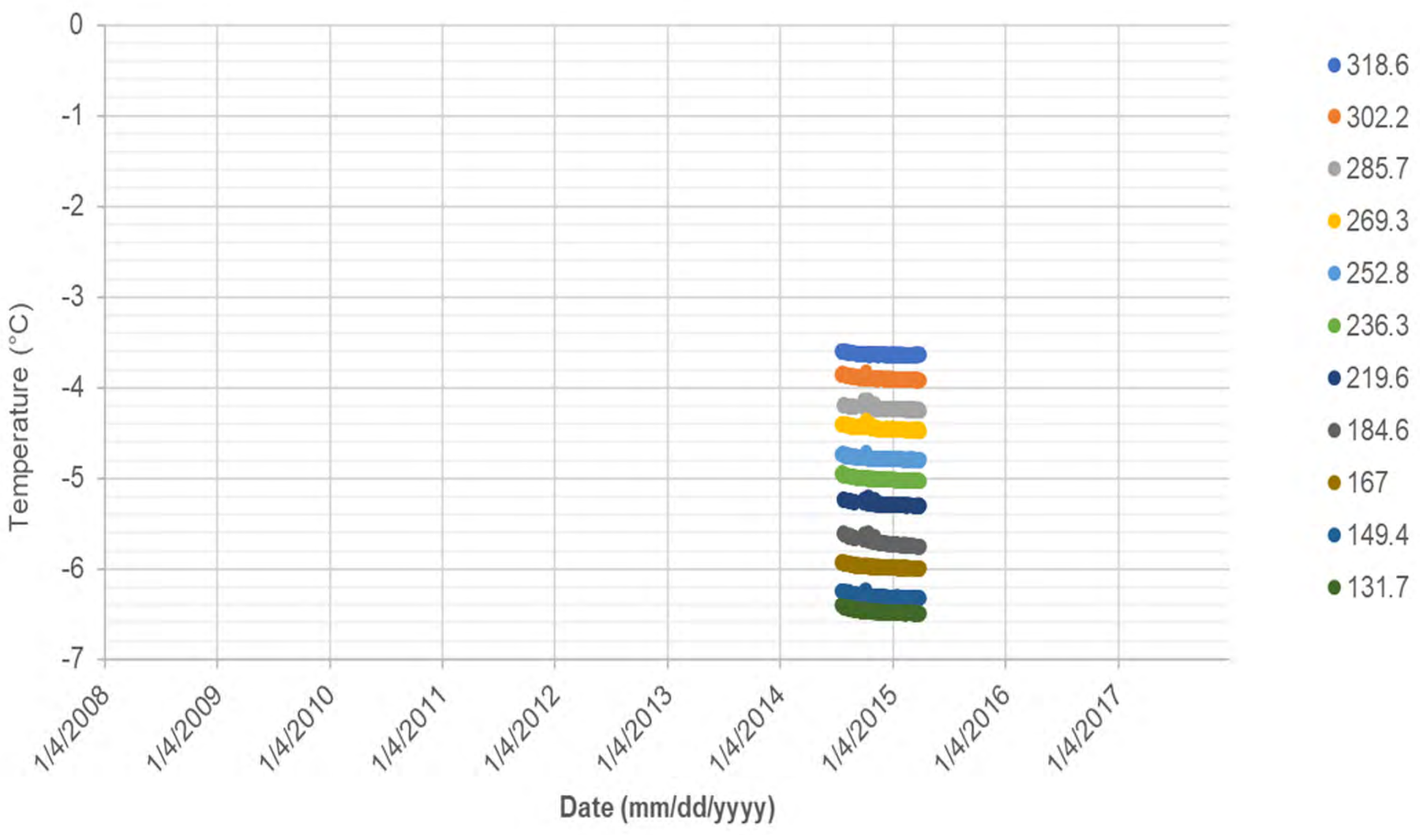

Temperature (°C)
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
6/14/2013 12:00

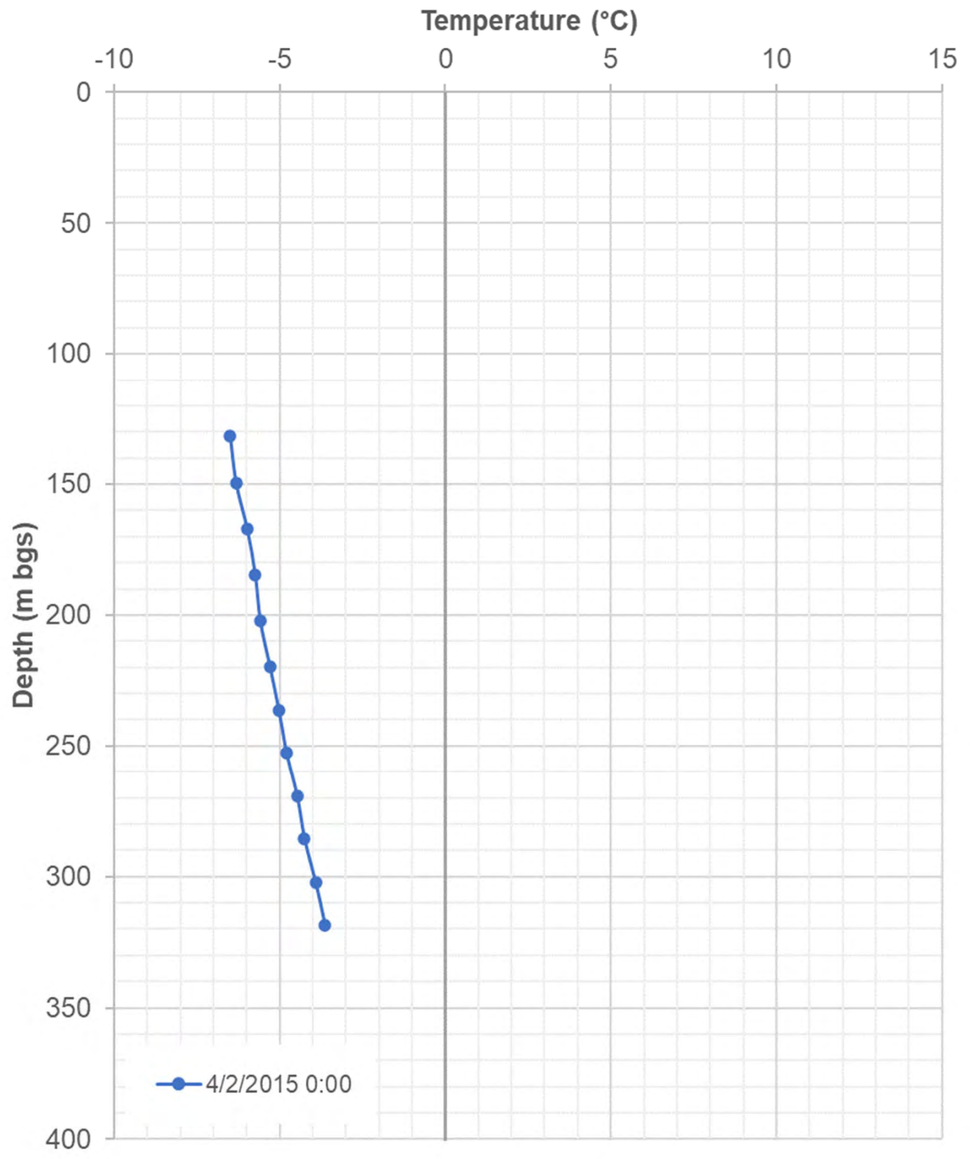
13-GSE-314


Temperature (°C)
0
-1
-2
-3
-4
-5
-6
-7
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
157.7
143.2
128.6
113.8
98.7
83.3
67.3
34.6
17.4
157.8

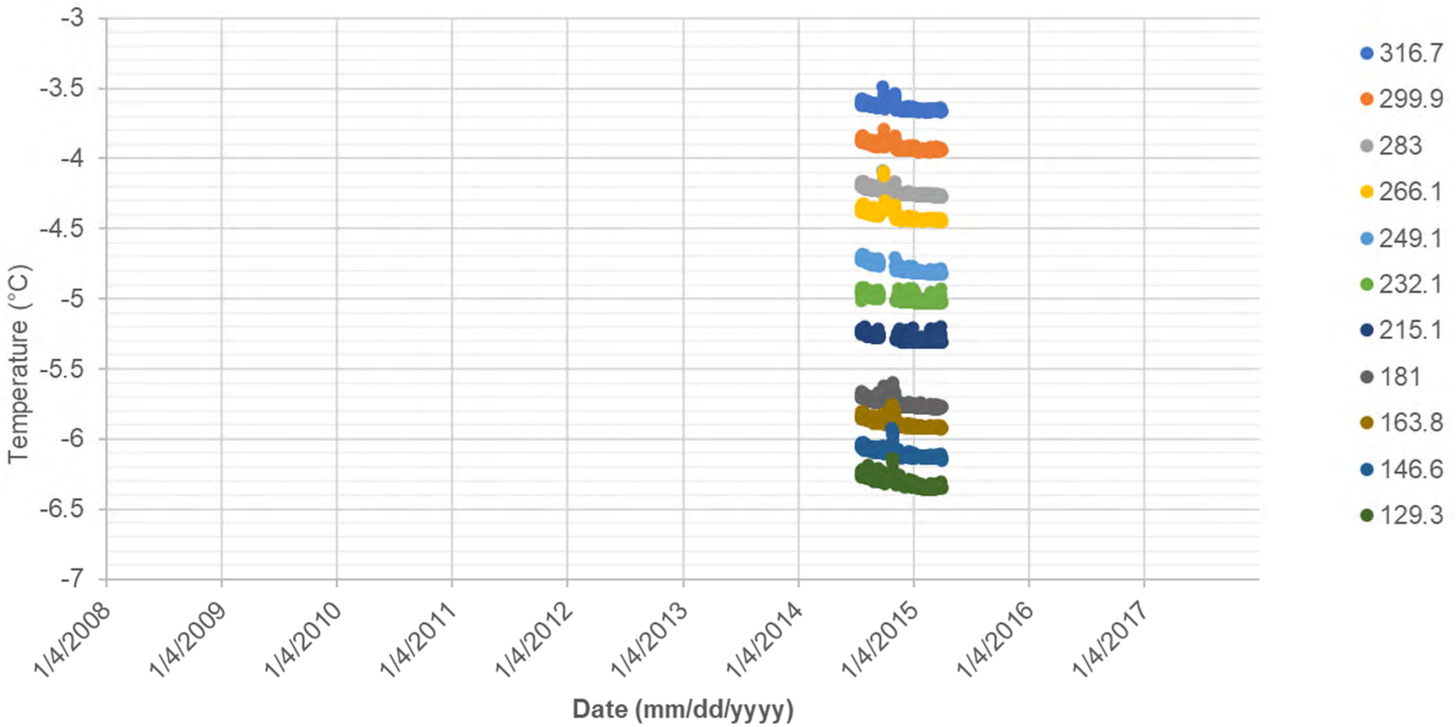

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/16/2017 12:00

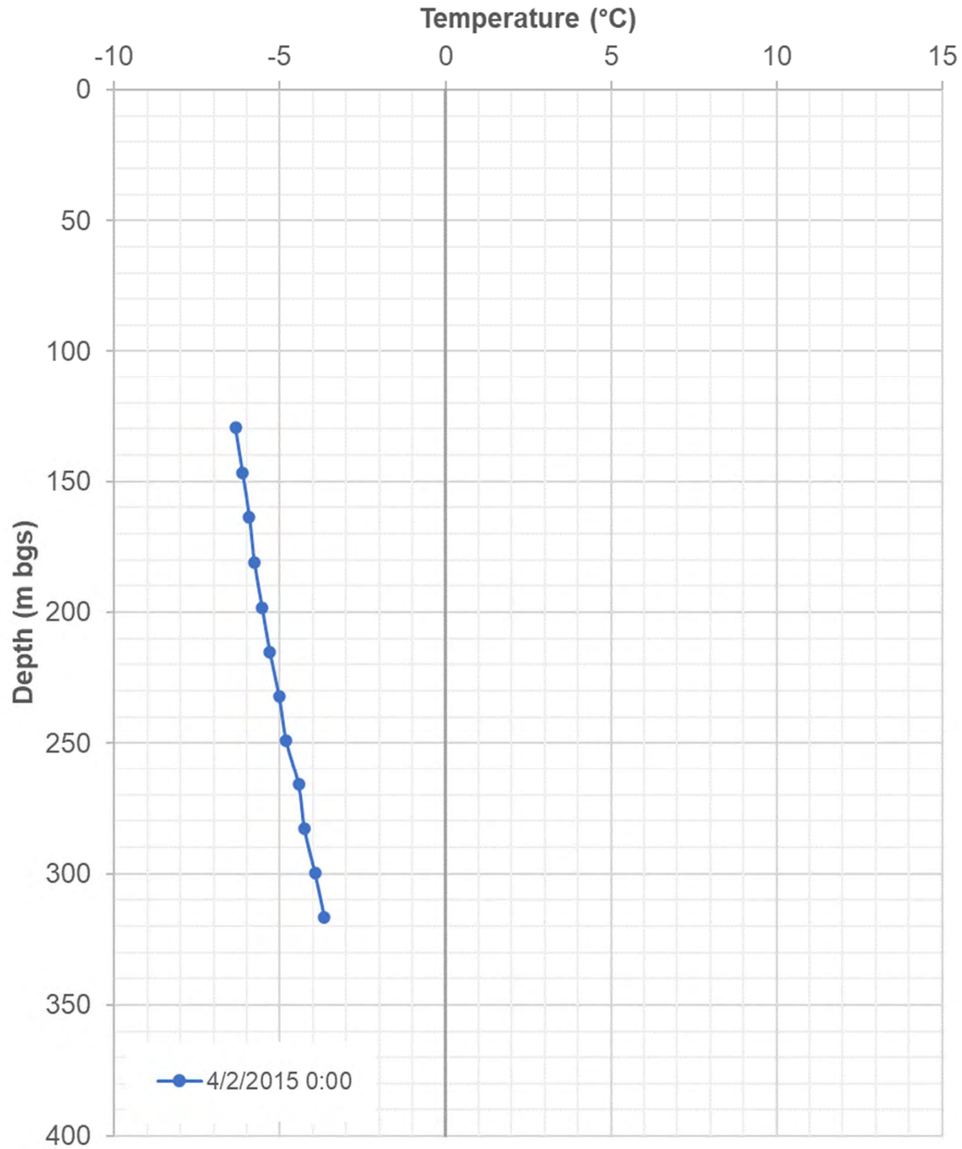
14-GSE-468


0
-1
-2
-3
-4
-5
-6
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
318.6
302.2
285.7
269.3
252.8
236.3
219.6
184.6
167
149.4
131.7

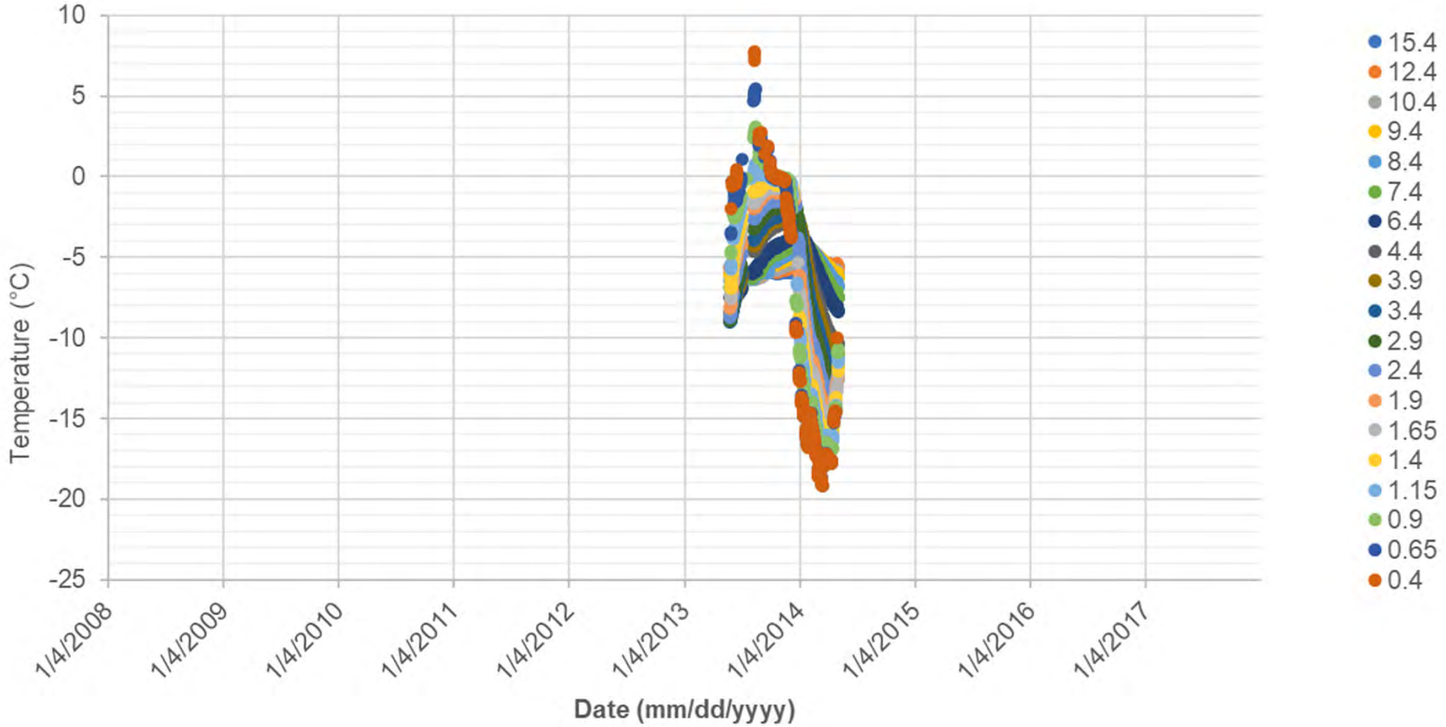

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/2/2015 0:00

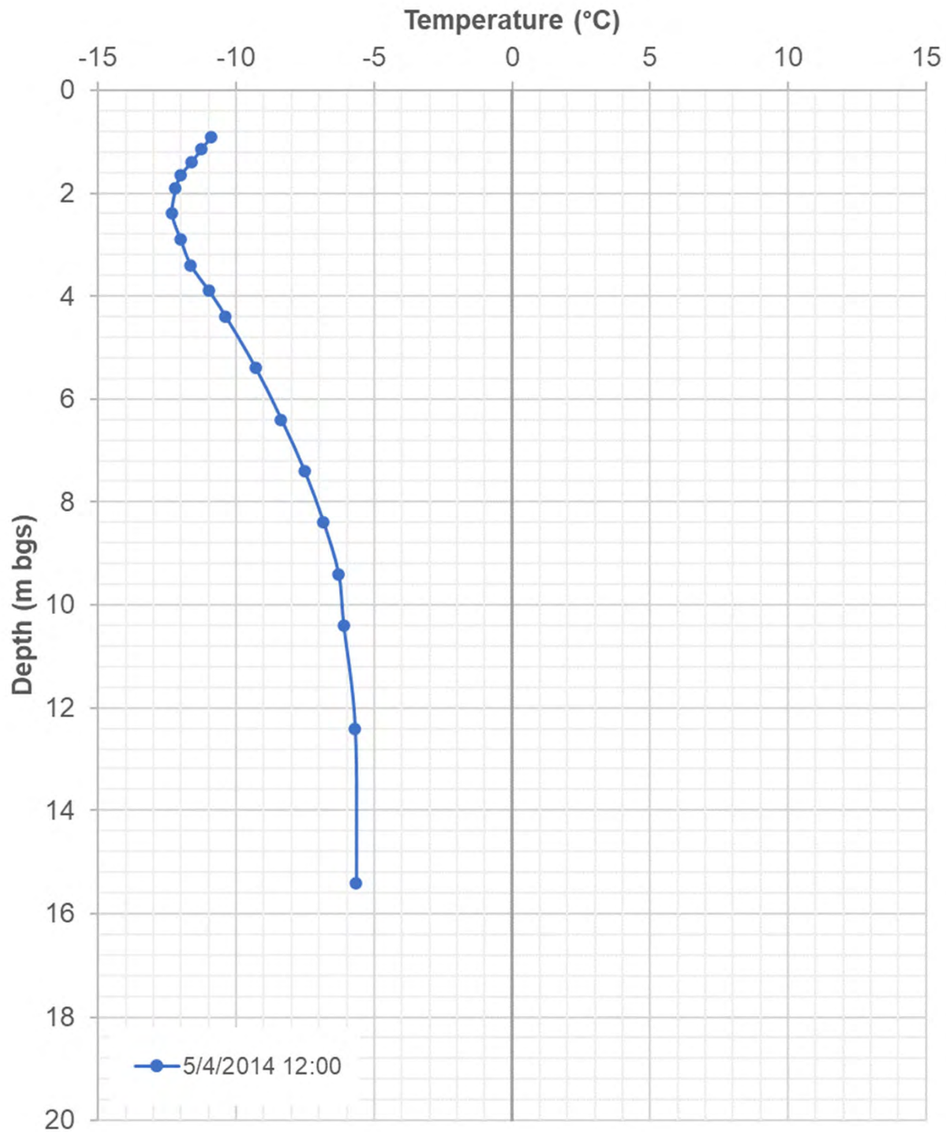
14-GSE-472


-3
-3.5
-4
-4.5
-5
-5.5
-6
-6.5
-7
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
316.7
299.9
283
266.1
249.1
232.1
215.1
181
163.8
146.6
129.3

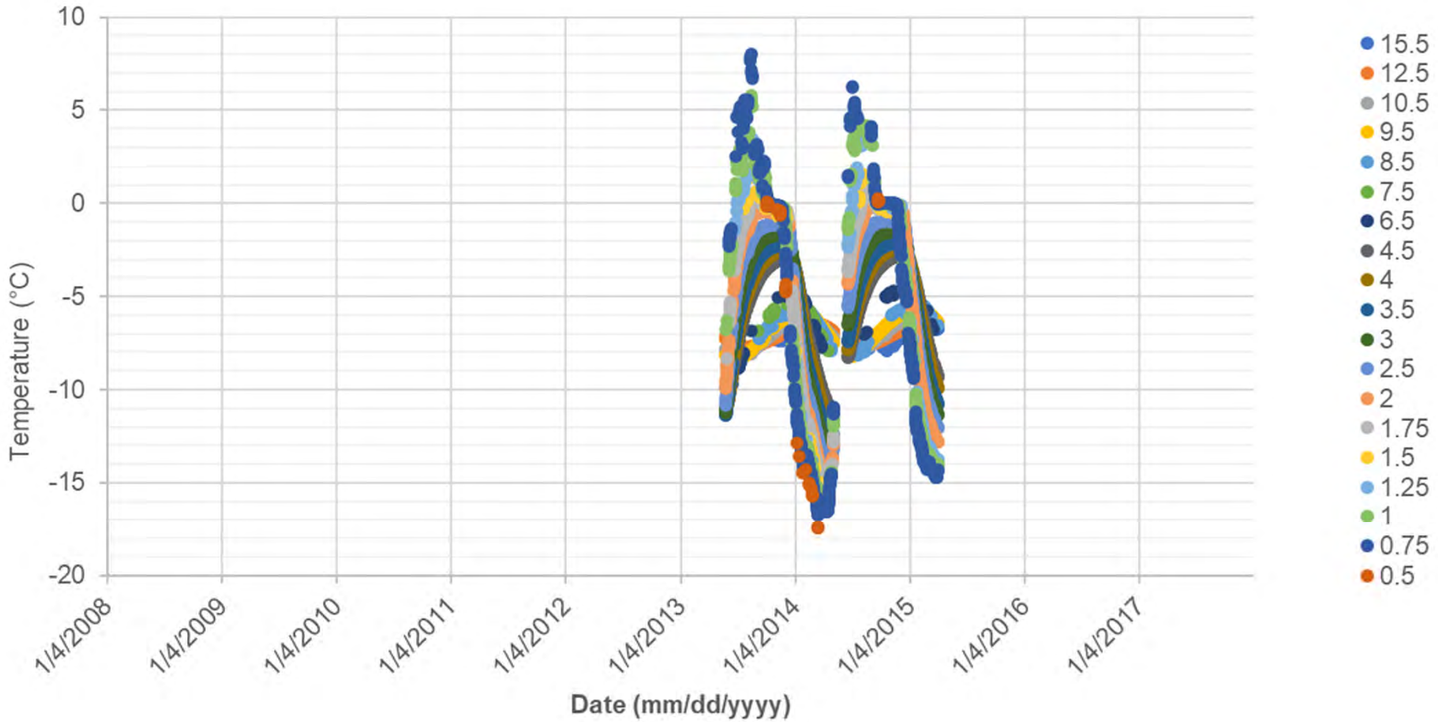

Temperature (°C)
-10
-5
0
5
10
15
0
50
100
150
200
250
300
350
400
Depth (m bgs)
4/2/2015 0:00

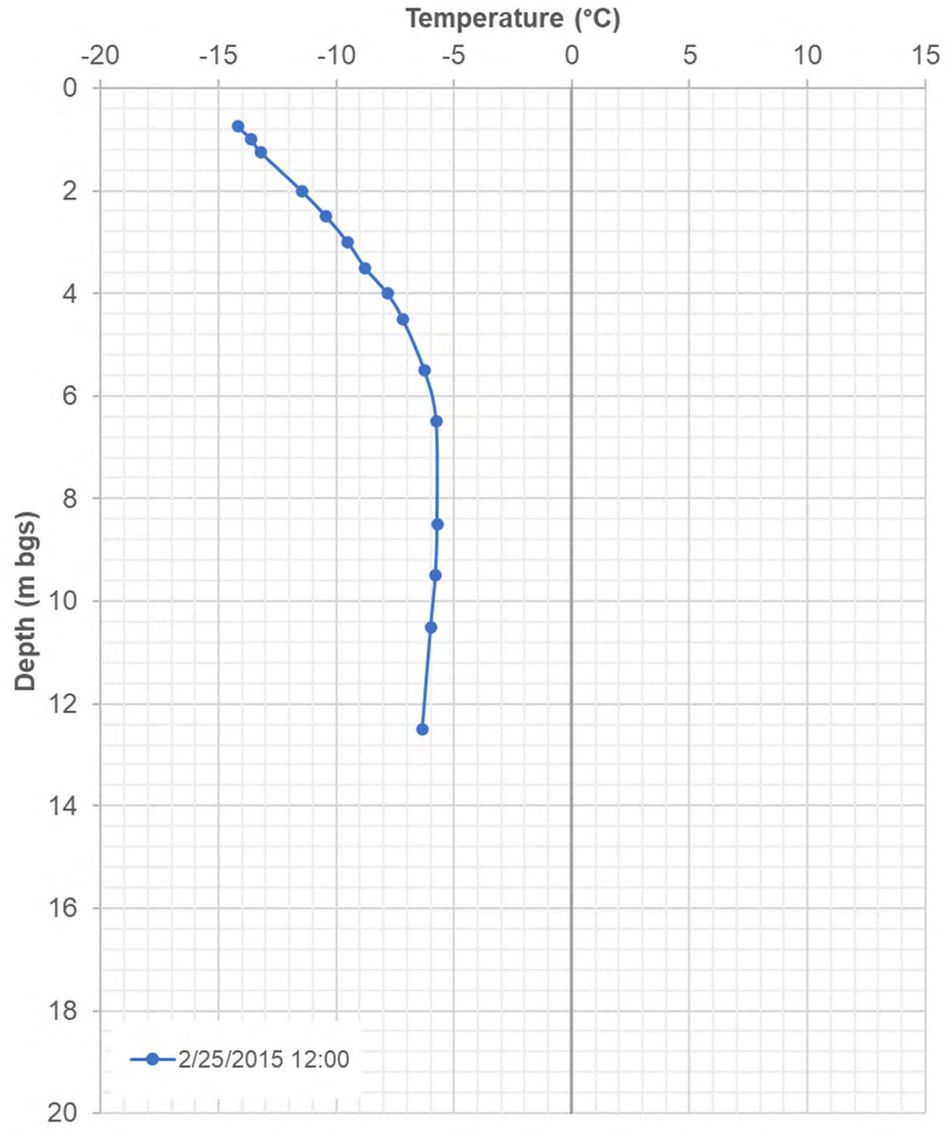
GAS-GT13-01


Temperature (°C)
10
5
0
-5
-10
-15
-20
-25
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.4
12.4
10.4
9.4
8.4
7.4
6.4
4.4
3.9
3.4
2.9
2.4
1.9
1.65
1.4
1.15
0.9
0.65
0.4

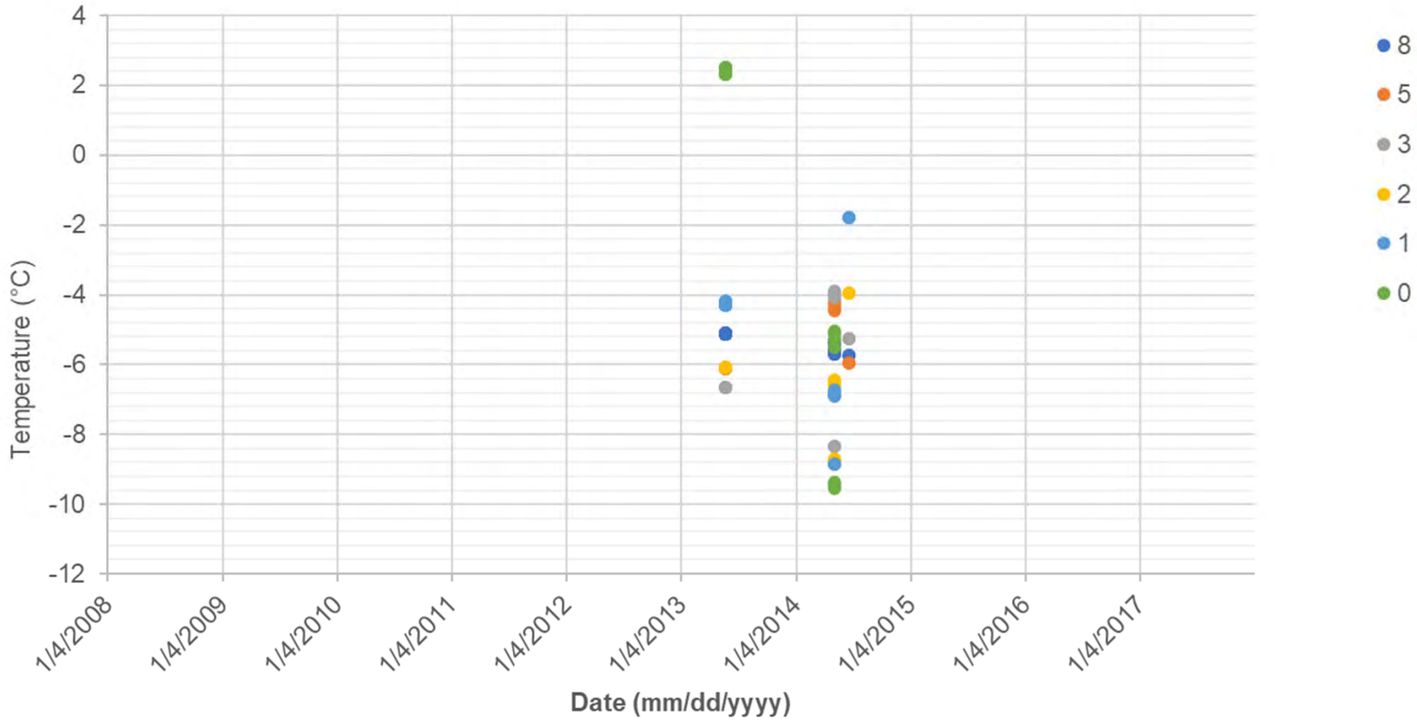

Temperature (°C)
-15
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
5/4/2014 12:00

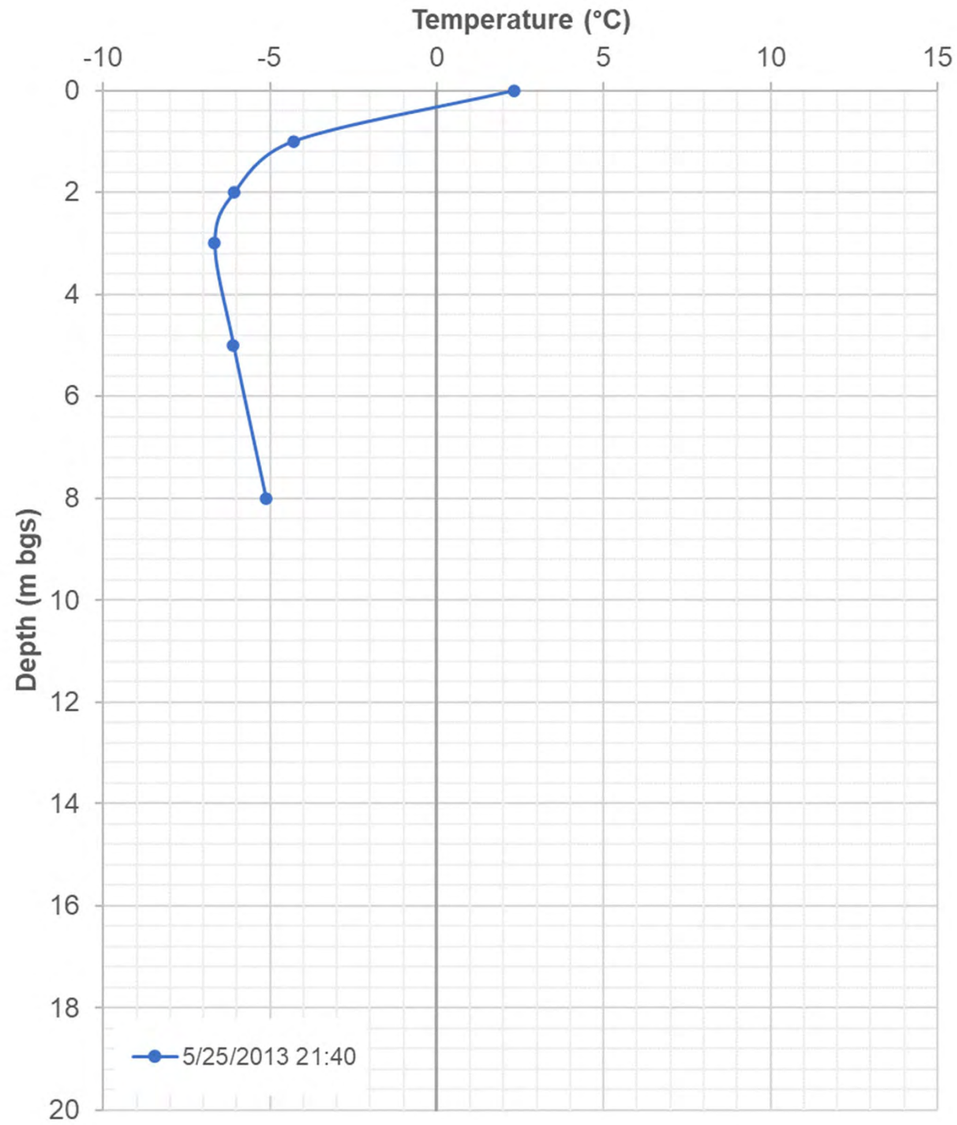
GAS-GT13-02


10
5
0
-5
-10
-15
-20
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
12.5
10.5
9.5
8.5
7.5
6.5
4.5
4
3.5
3
2.5
2
1.75
1.5
1.25
1
0.75
0.5

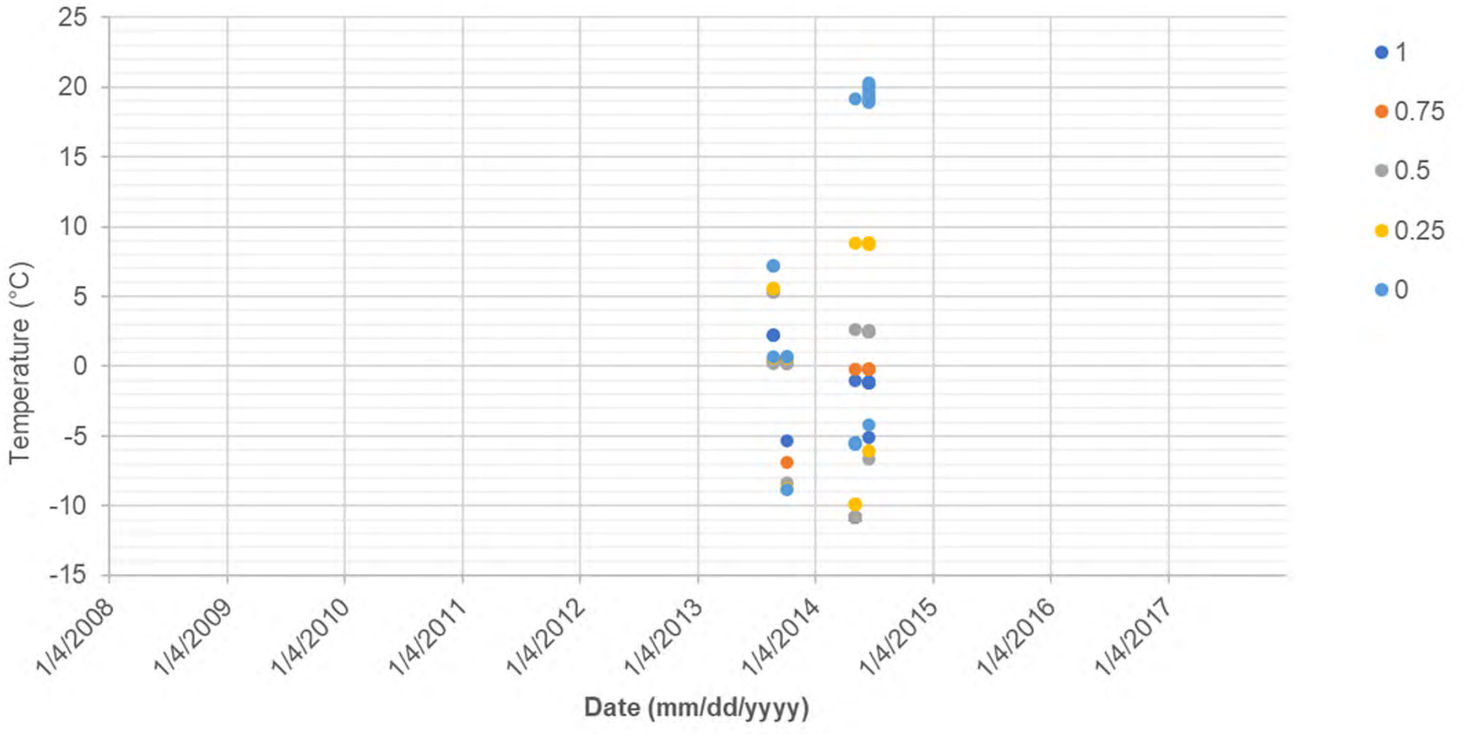

Temperature (°C)
-20
-15
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
2/25/2015 12:00

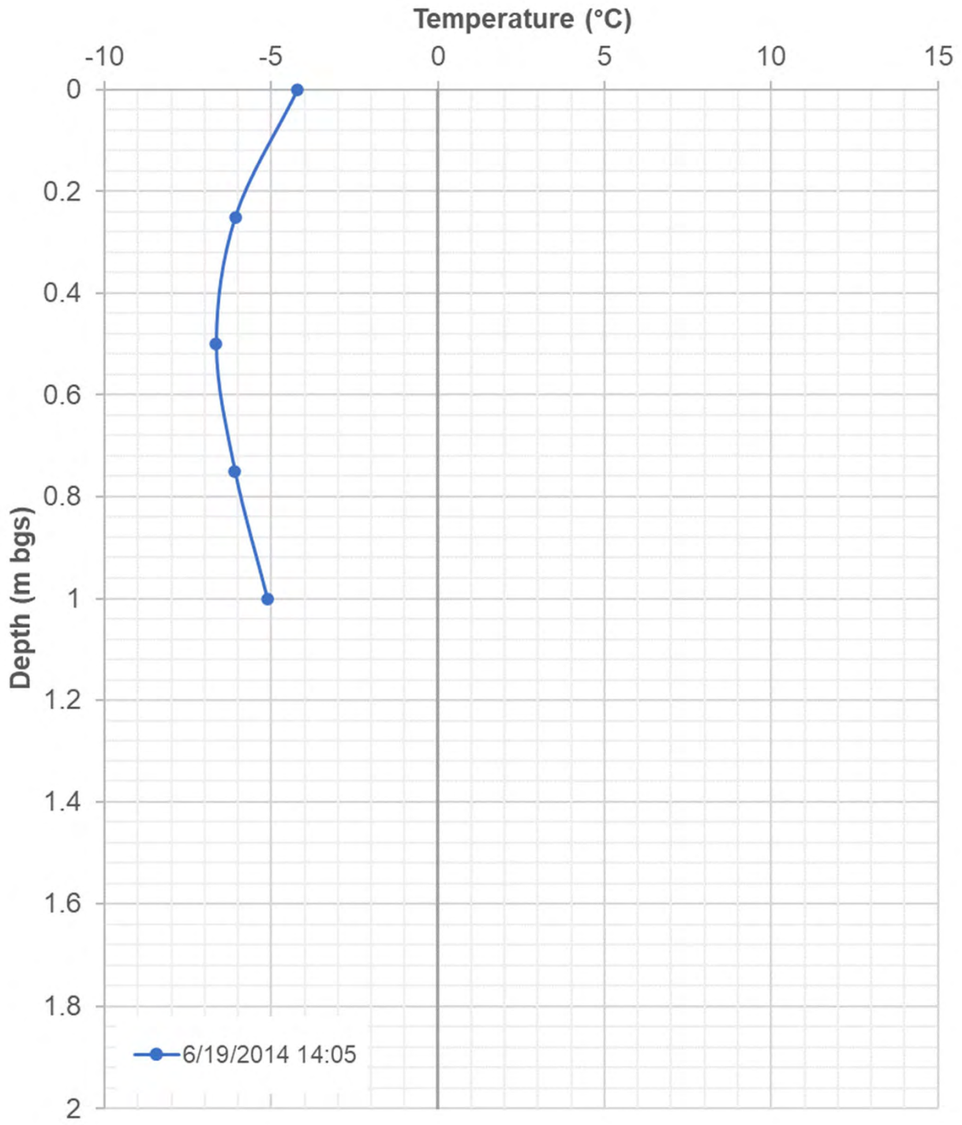
GAS-GT13-04


Temperature (°C)
4
2
0
-2
-4
-6
-8
-10
-12
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
8
5
3
2
1
0

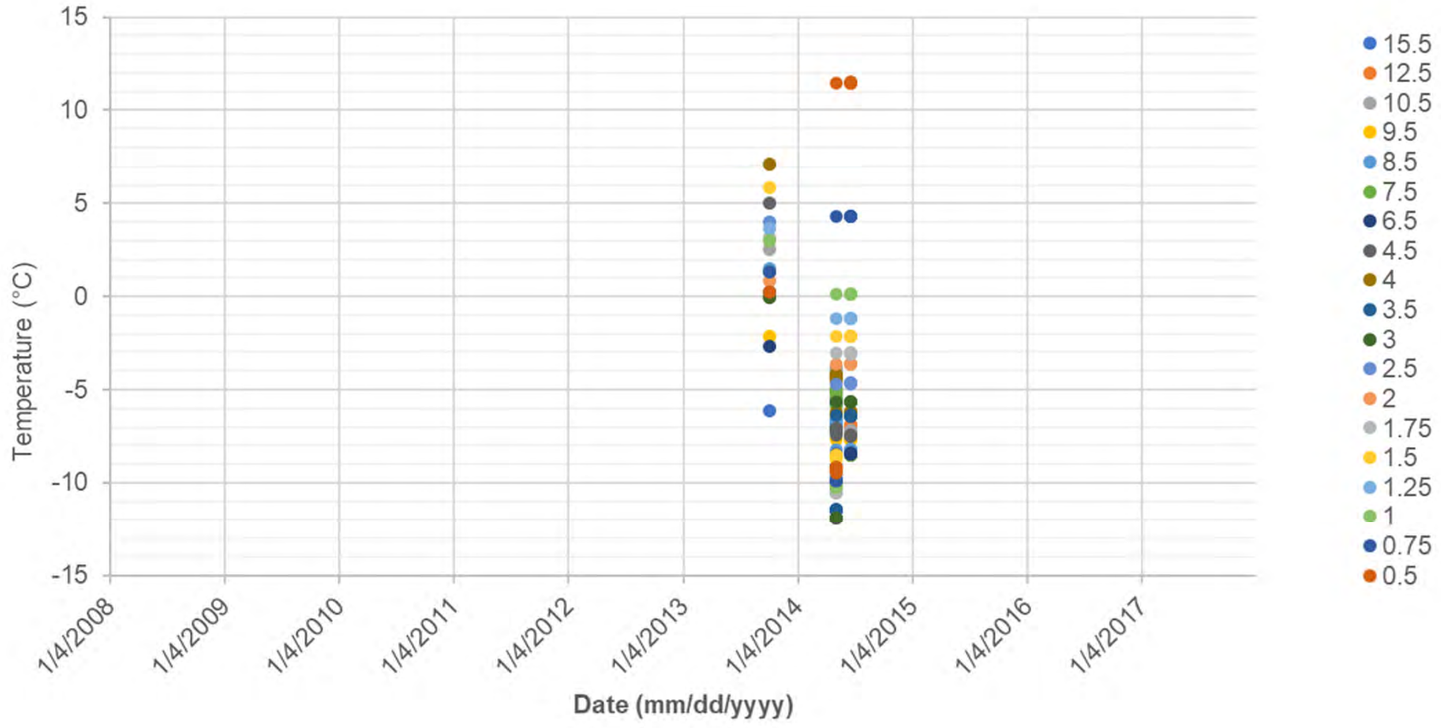

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
2
4
6
8
10
12
14
16
18
20
5/25/2013 21:40

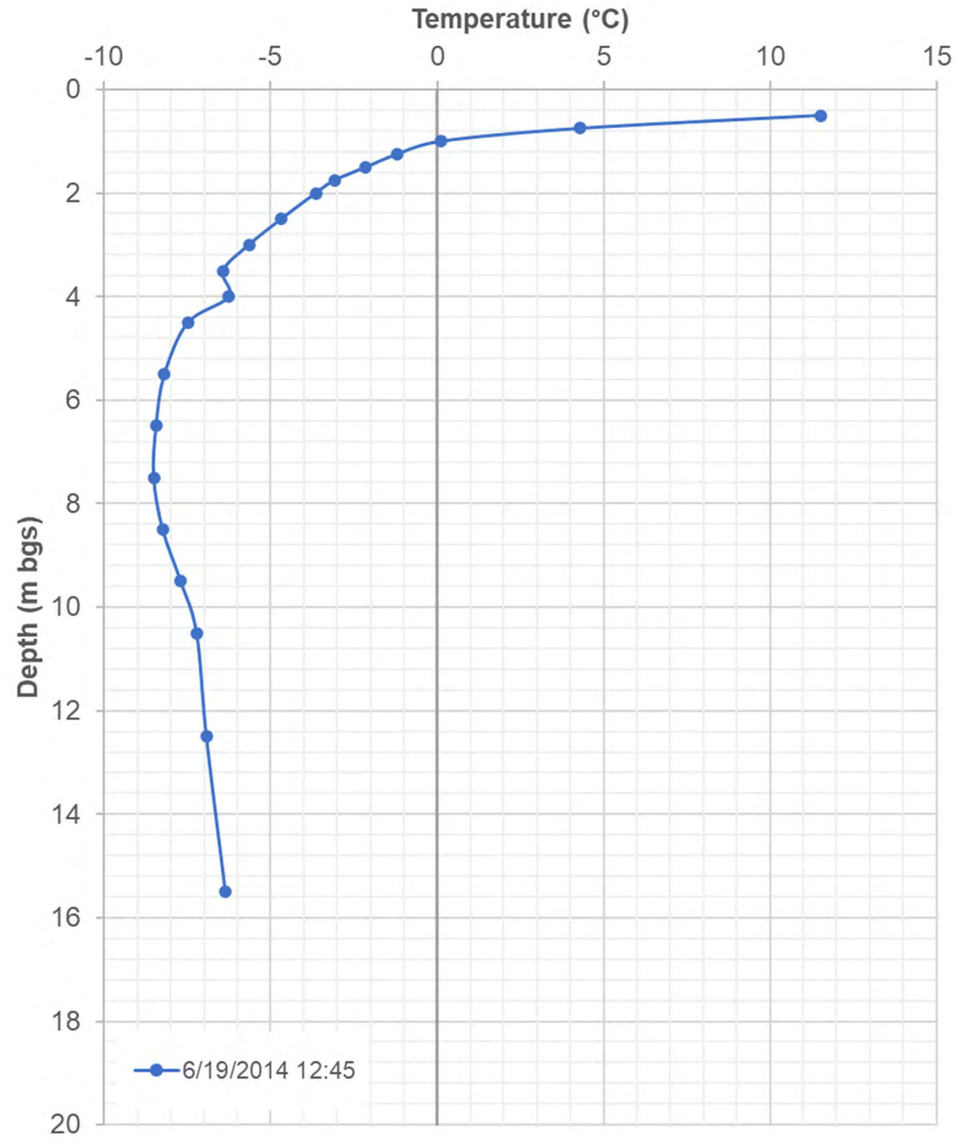
GAS-TP13-51


Temperature (°C)
25
20
15
10
5
0
-5
-10
-15
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
1
0.75
0.5
0.25
0

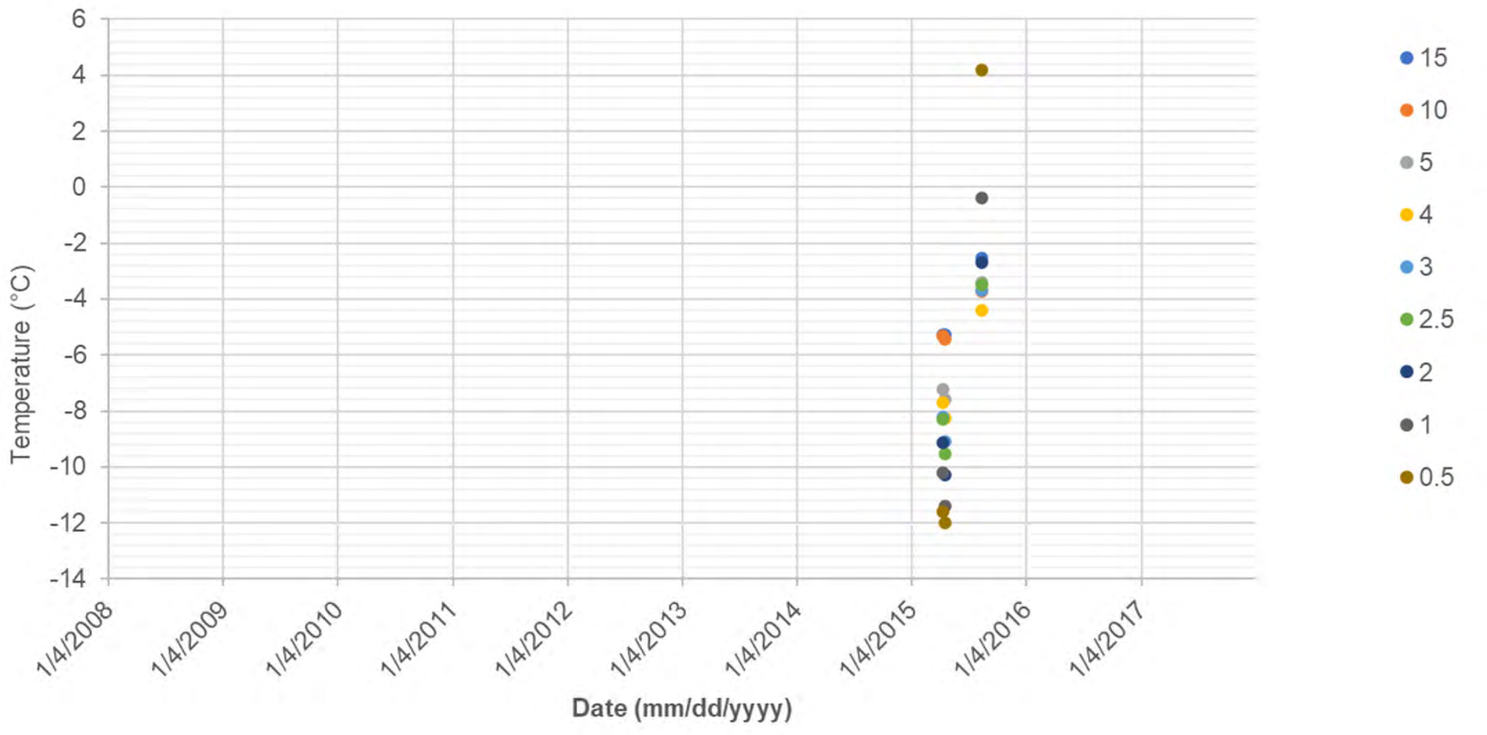

Temperature (°C)
-10
-5
0
5
10
15
Depth (m bgs)
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
6/19/2014 14:05

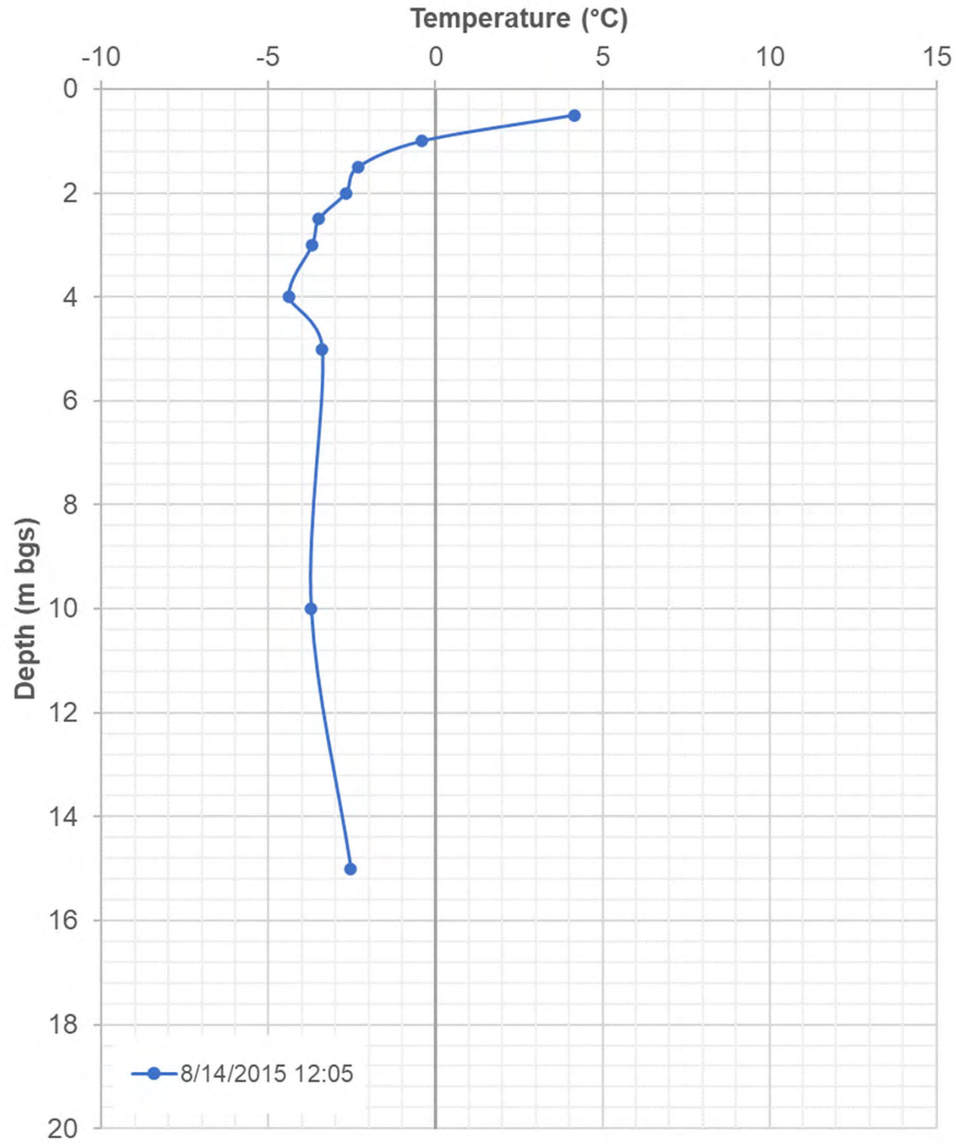
GPS-TP13-01


Temperature (°C)
15
10
5
0
-5
-10
-15
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15.5
12.5
10.5
9.5
8.5
7.5
6.5
4.5
4
3.5
3
2.5
2
1.75
1.5
1.25
1
0.75
0.5

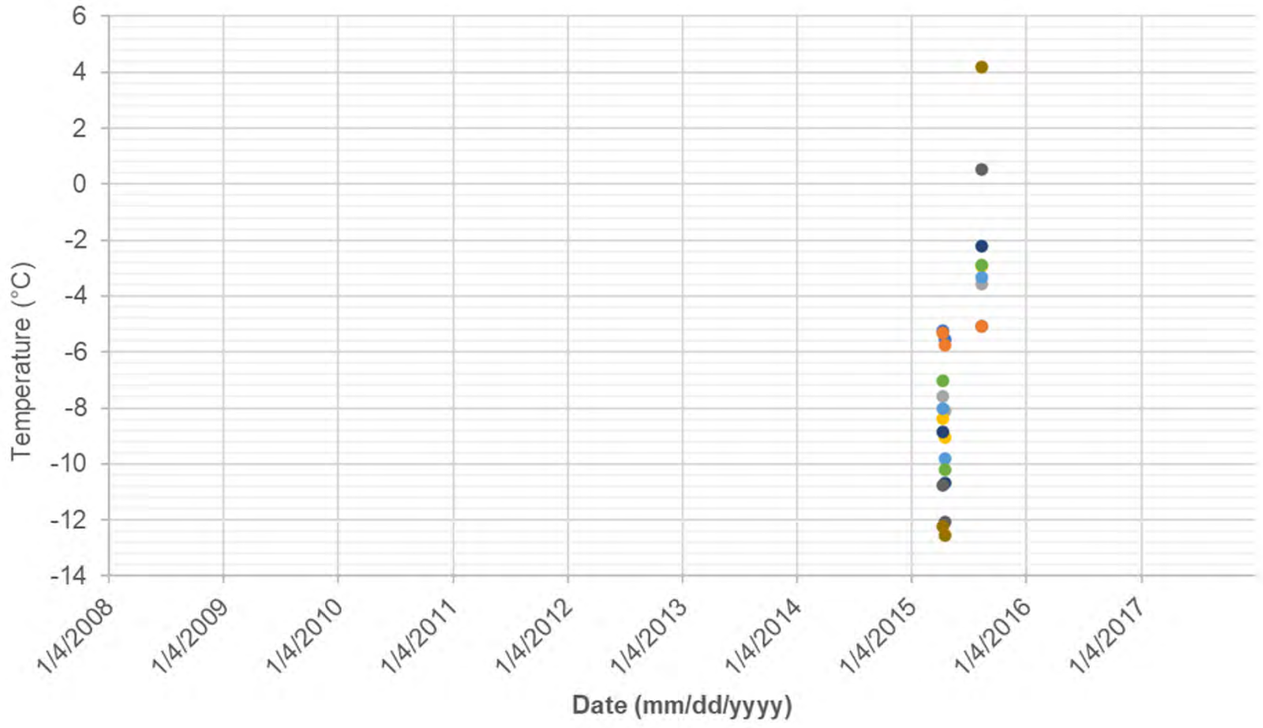

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
6/19/2014 12:45

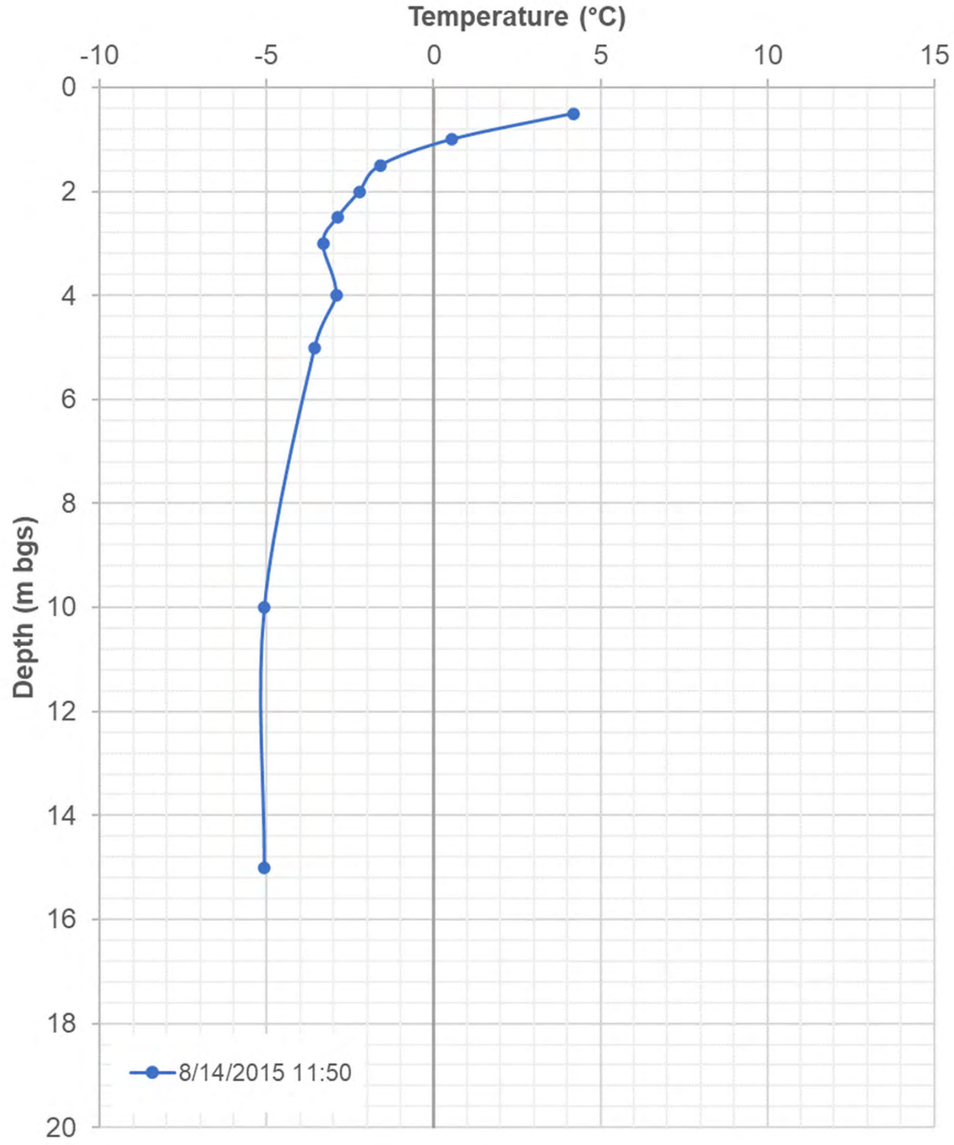
15-DH12


Temperature (°C)
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

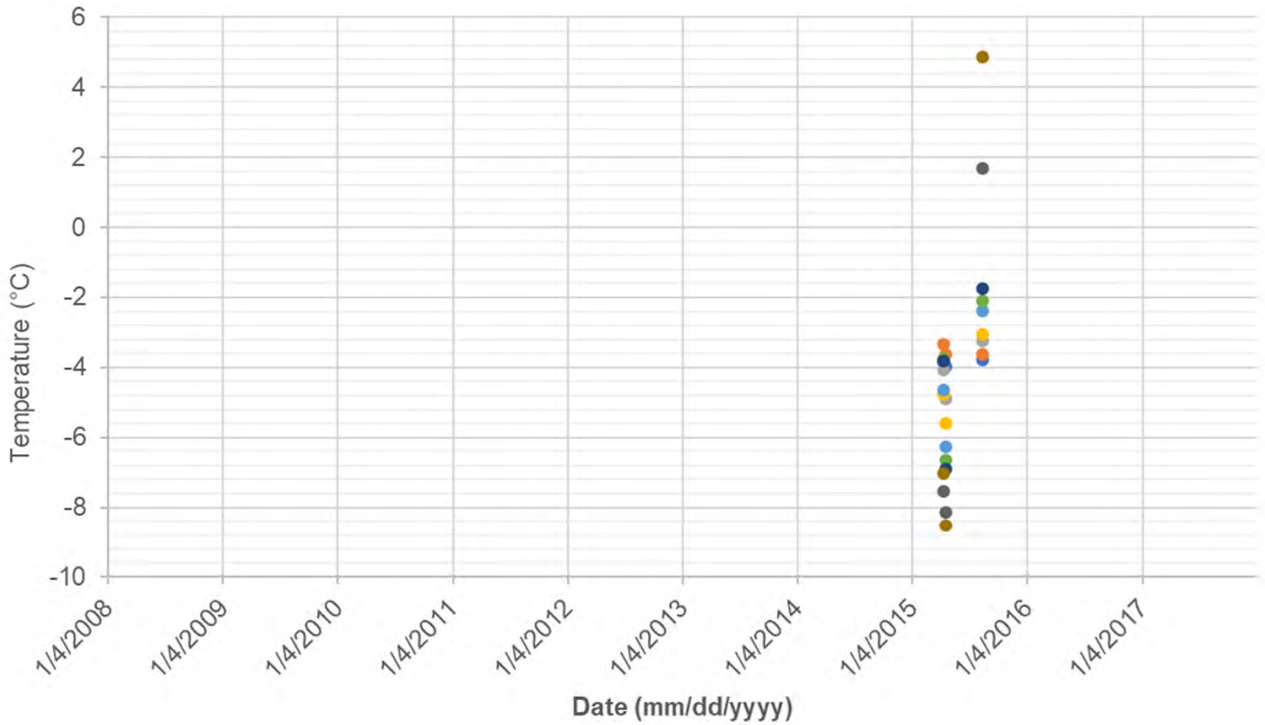

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 12:05

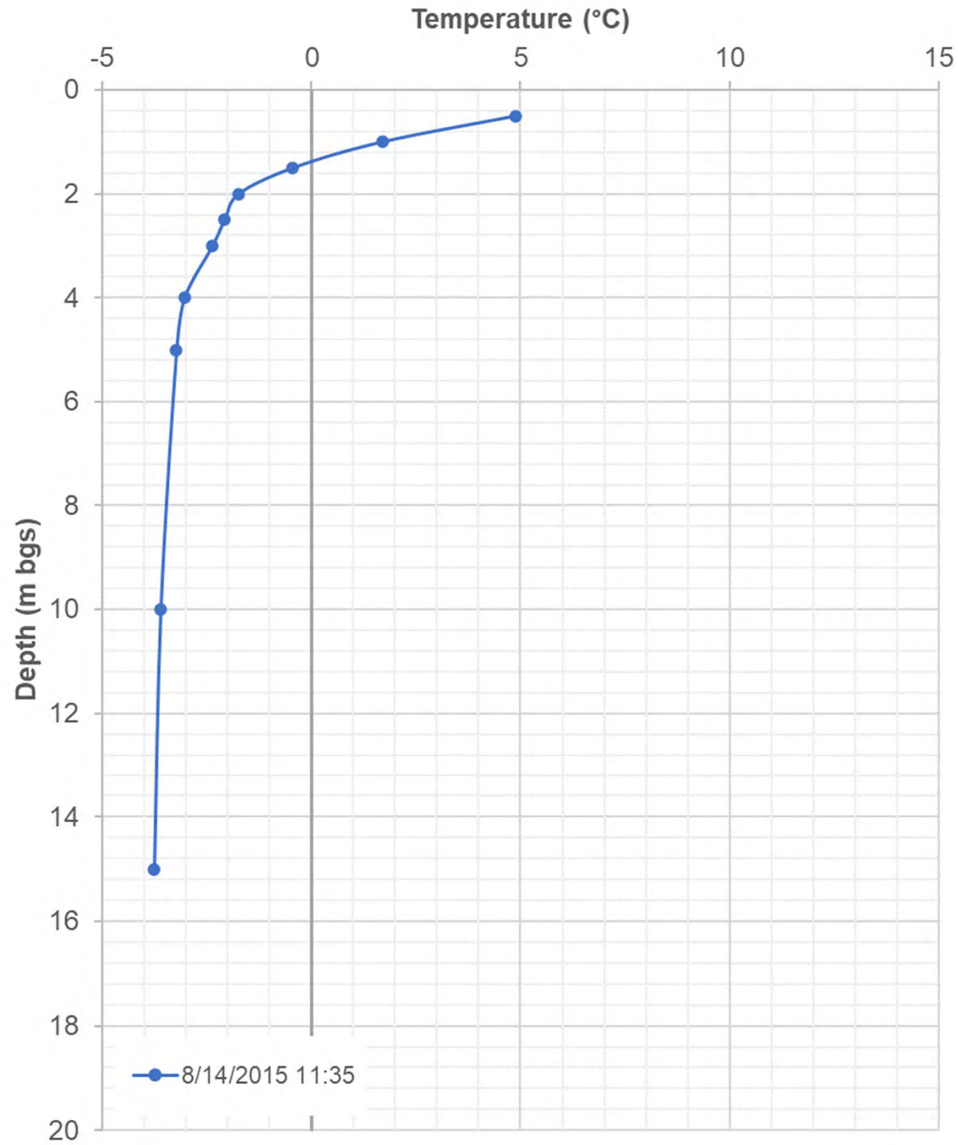
15-DH13


Temperature (°C)
6
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

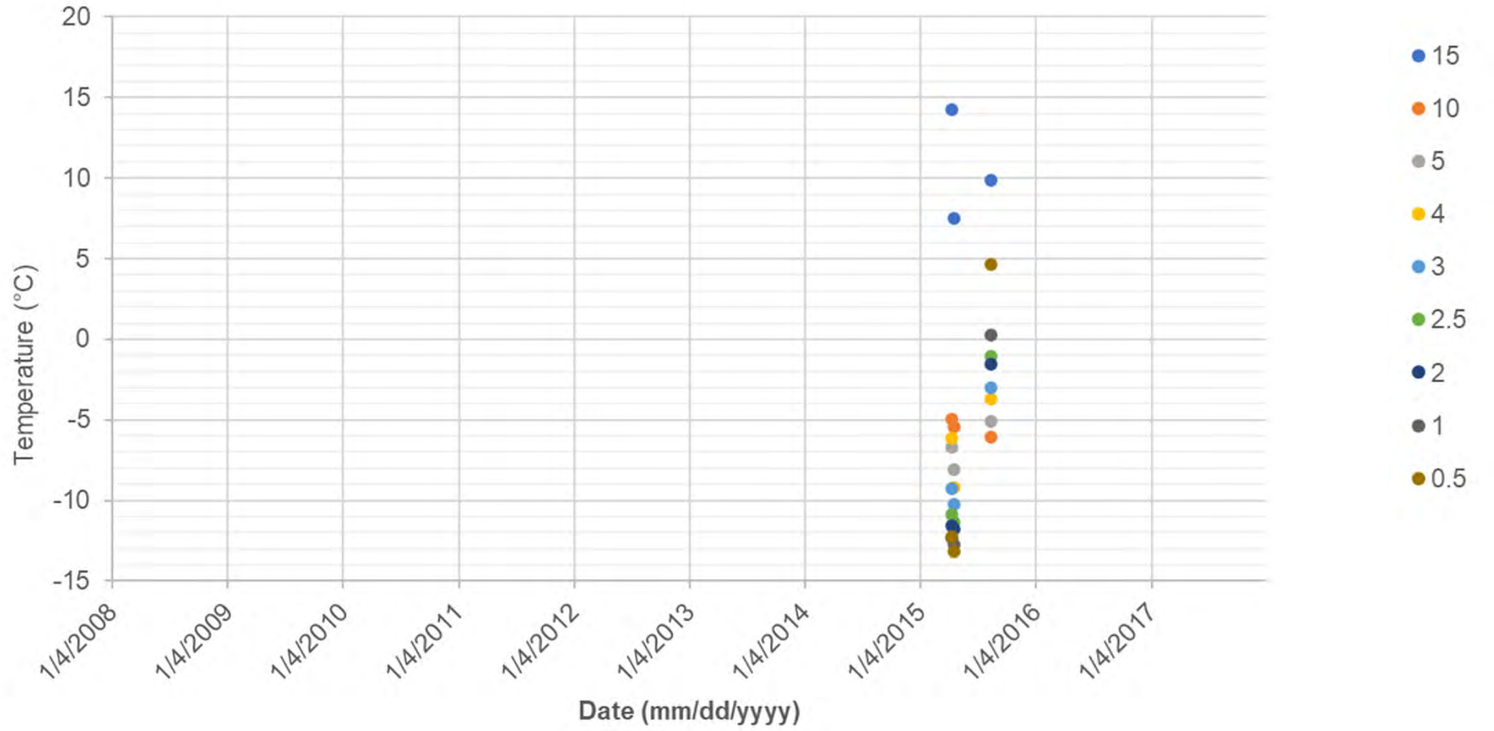

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:50

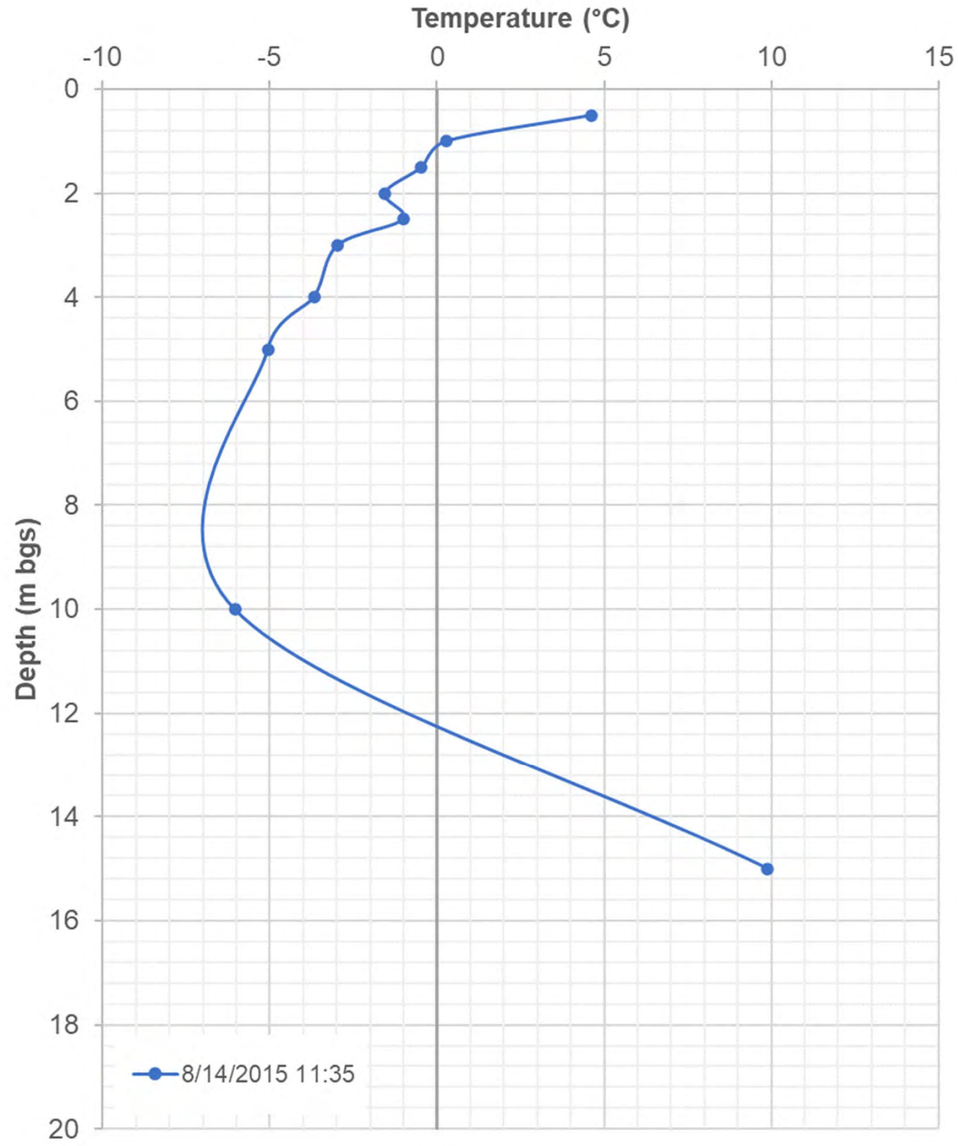
15-DH15


6
4
2
0
-2
-4
-6
-8
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

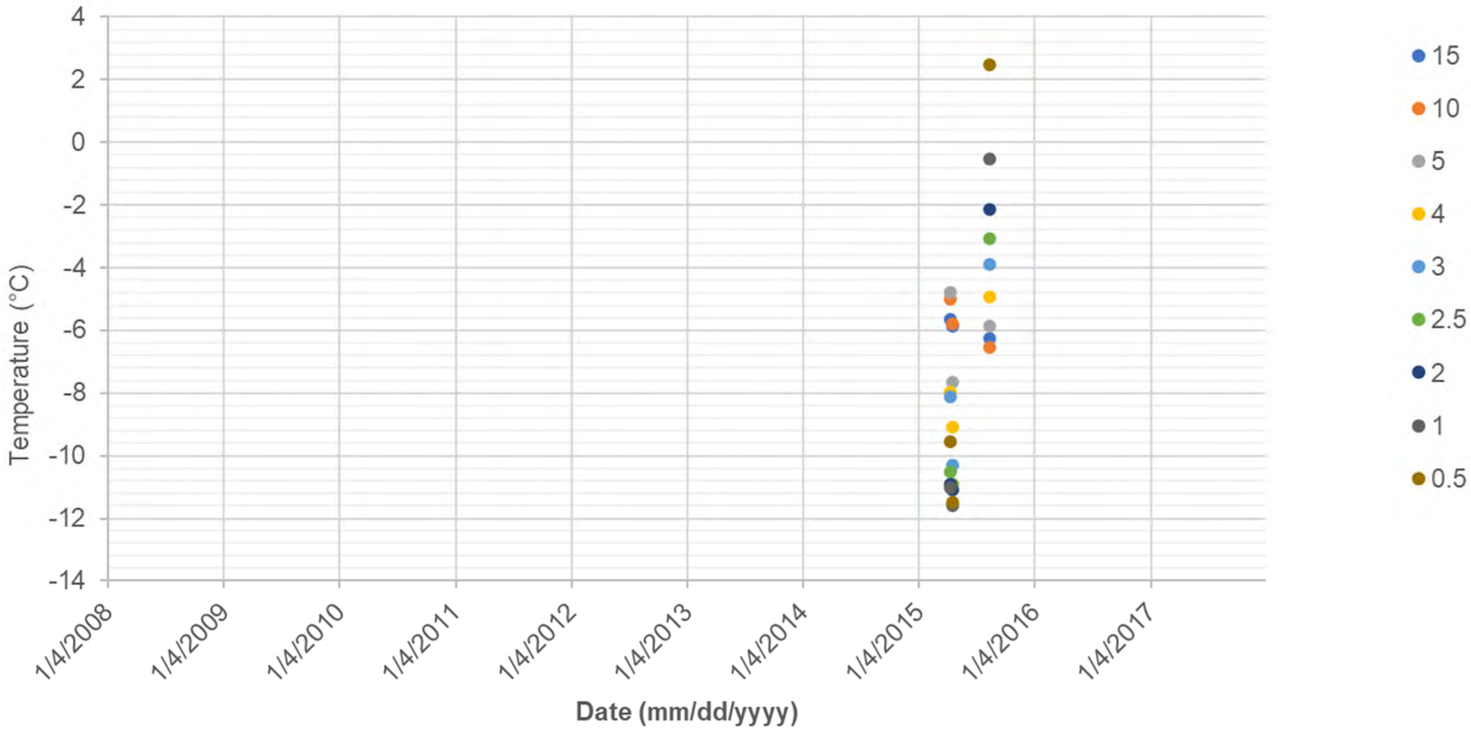

Temperature (°C)
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:35

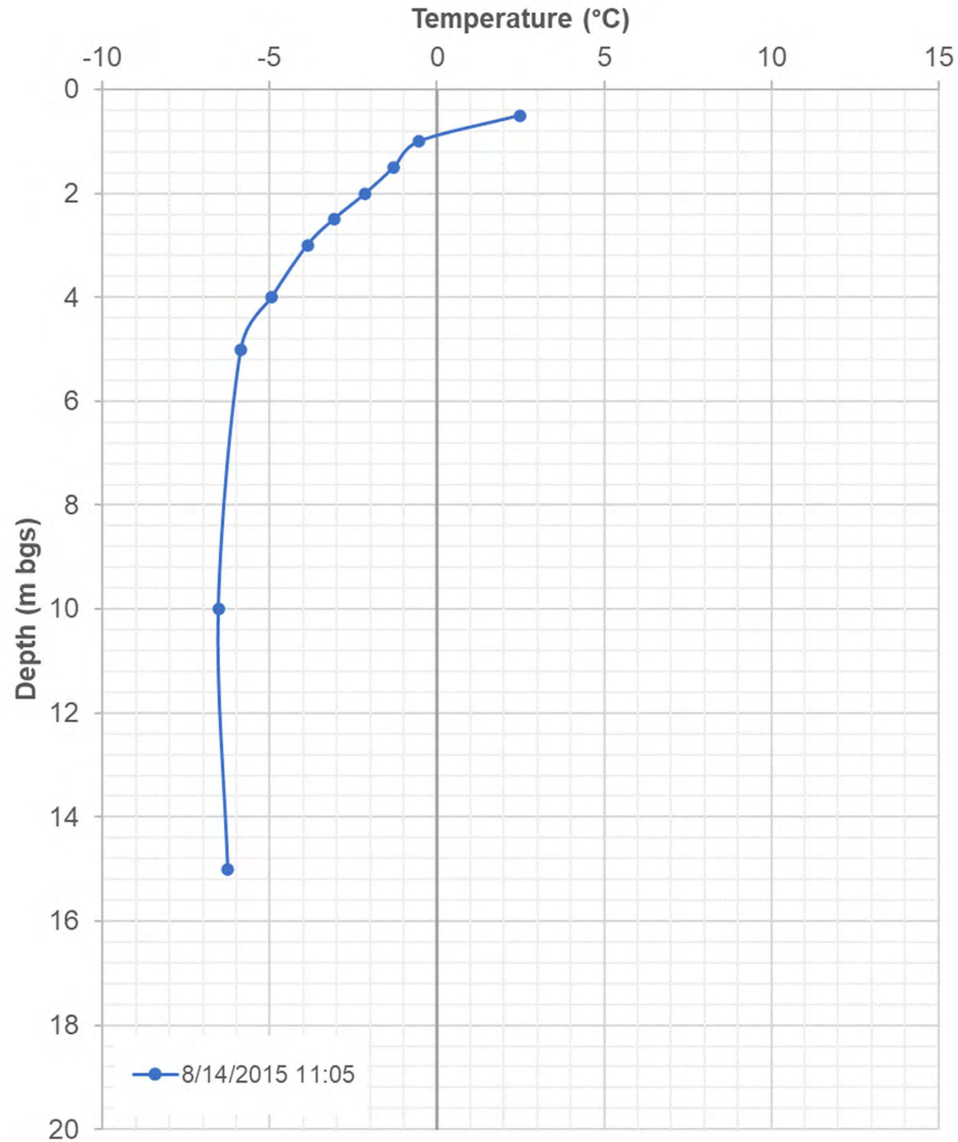
15-DH16


20
15
10
5
0
-5
-10
-15
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

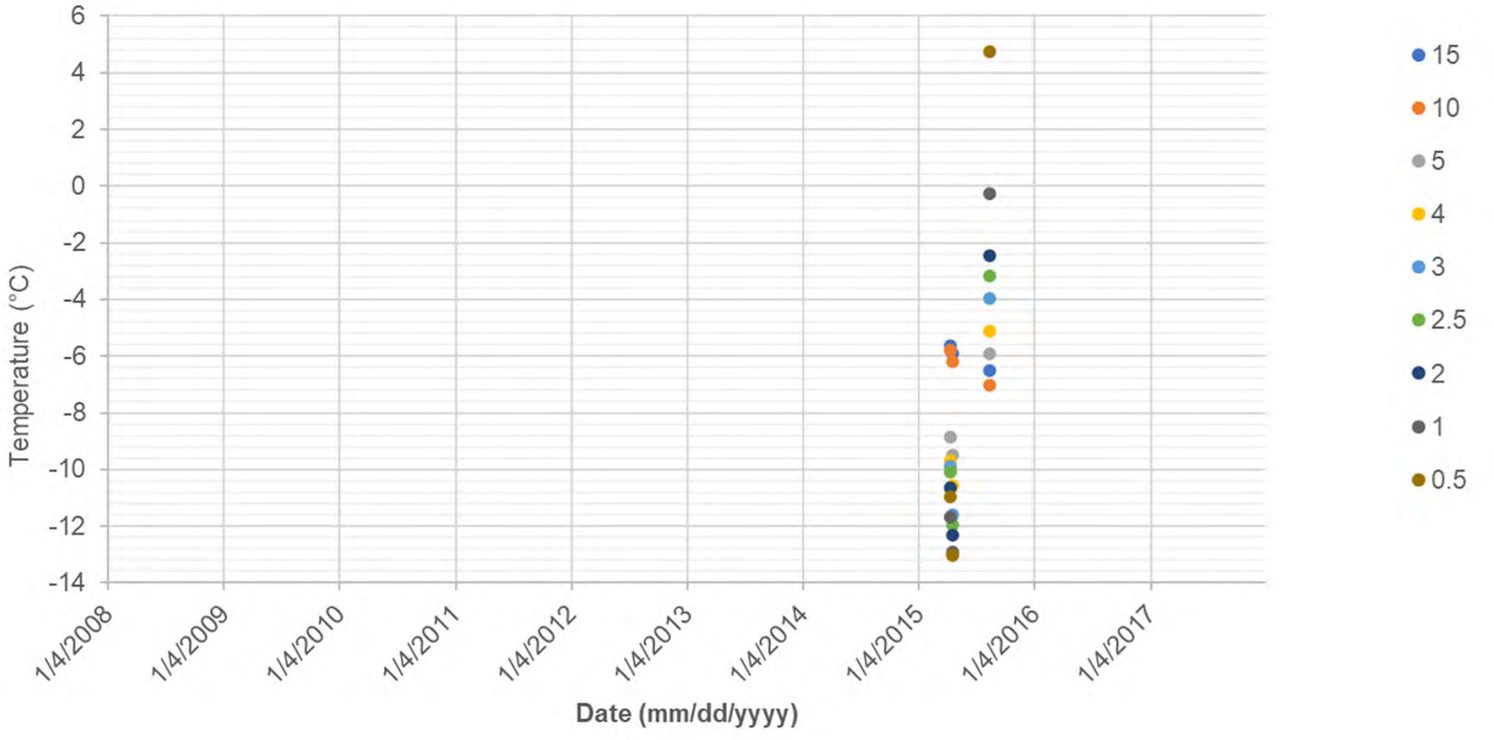

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:35

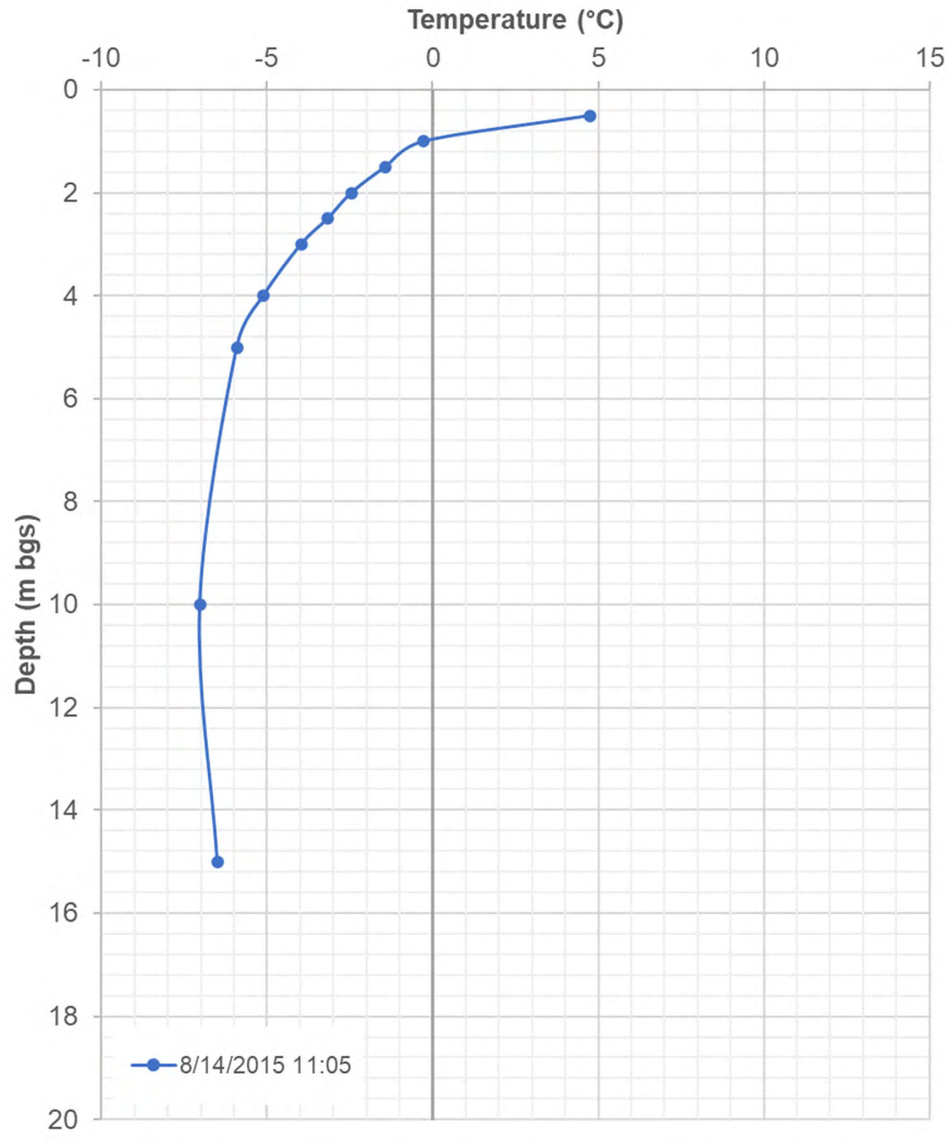
15-DH17


Temperature (°C)
4
2
0
-2
-4
-6
-8
-10
-12
-14
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

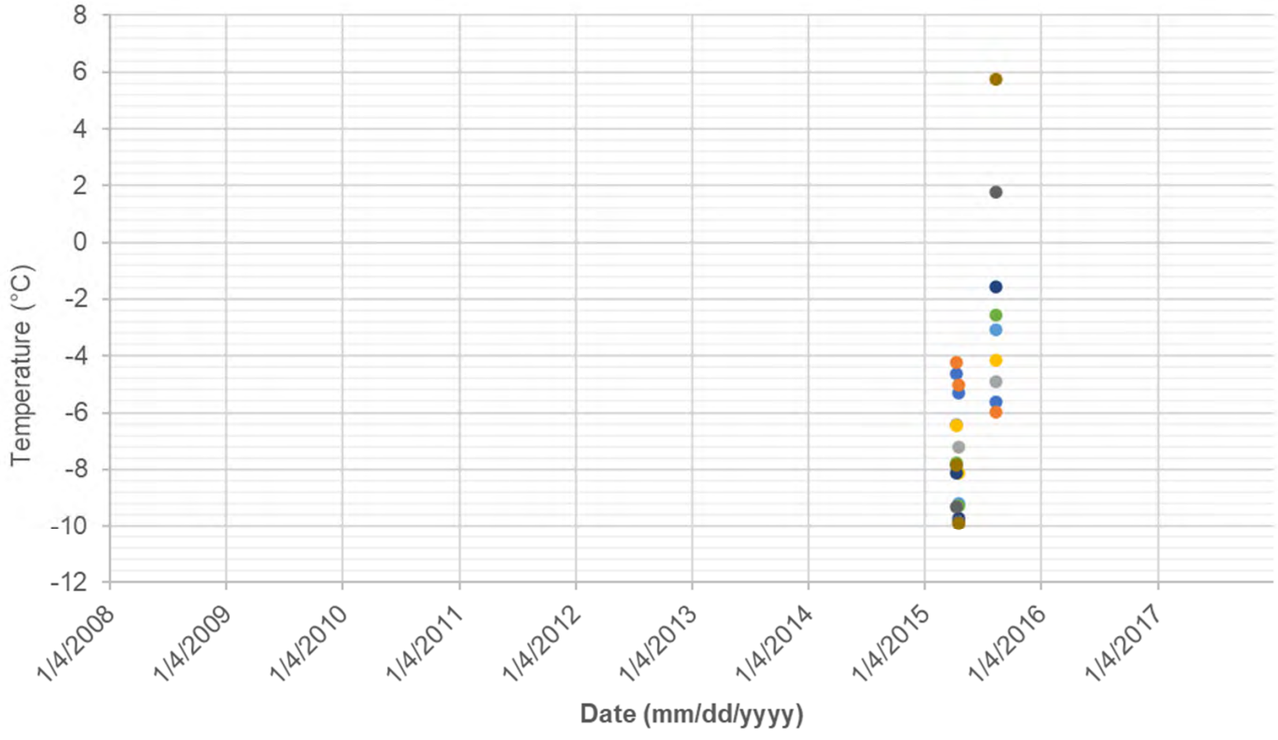

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:05

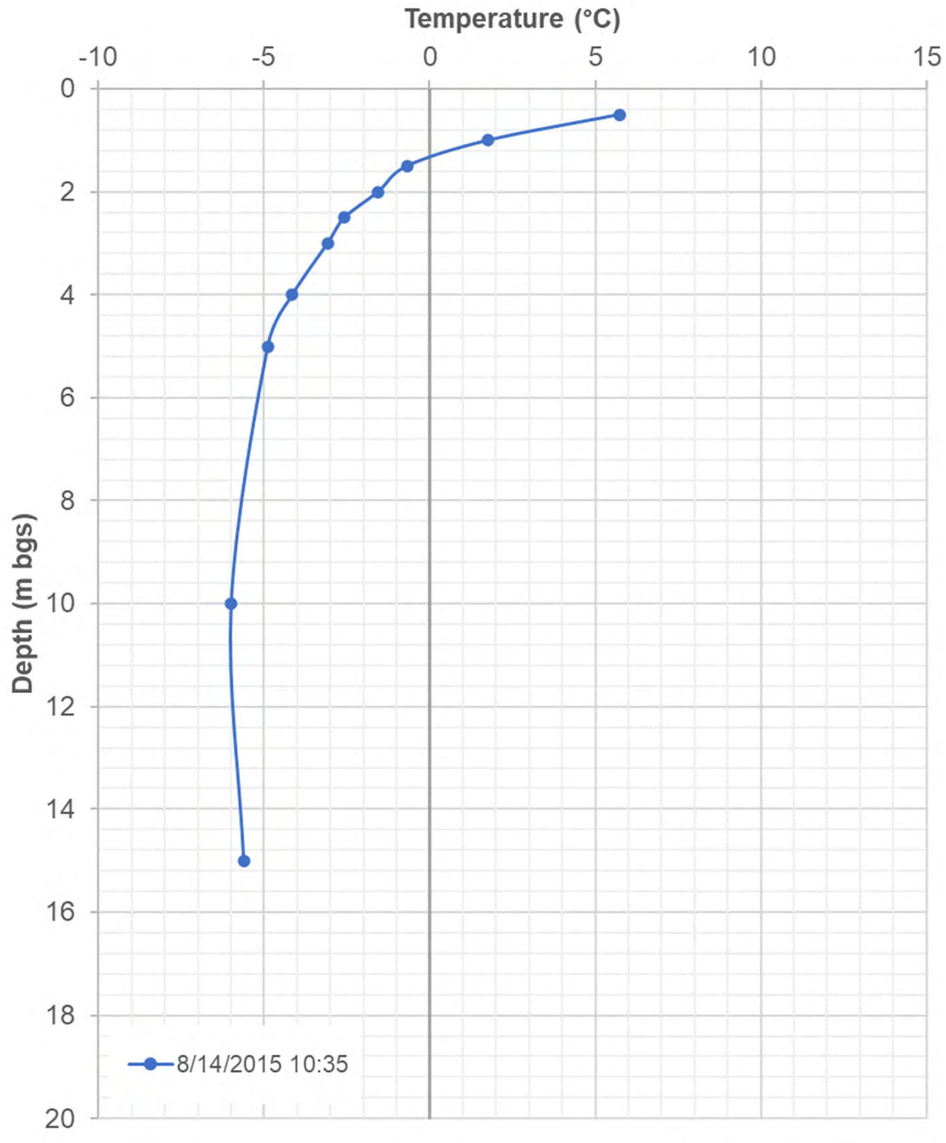
15-DH18


6
4
2
0
-2
-4
-6
-8
-10
-12
-14
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

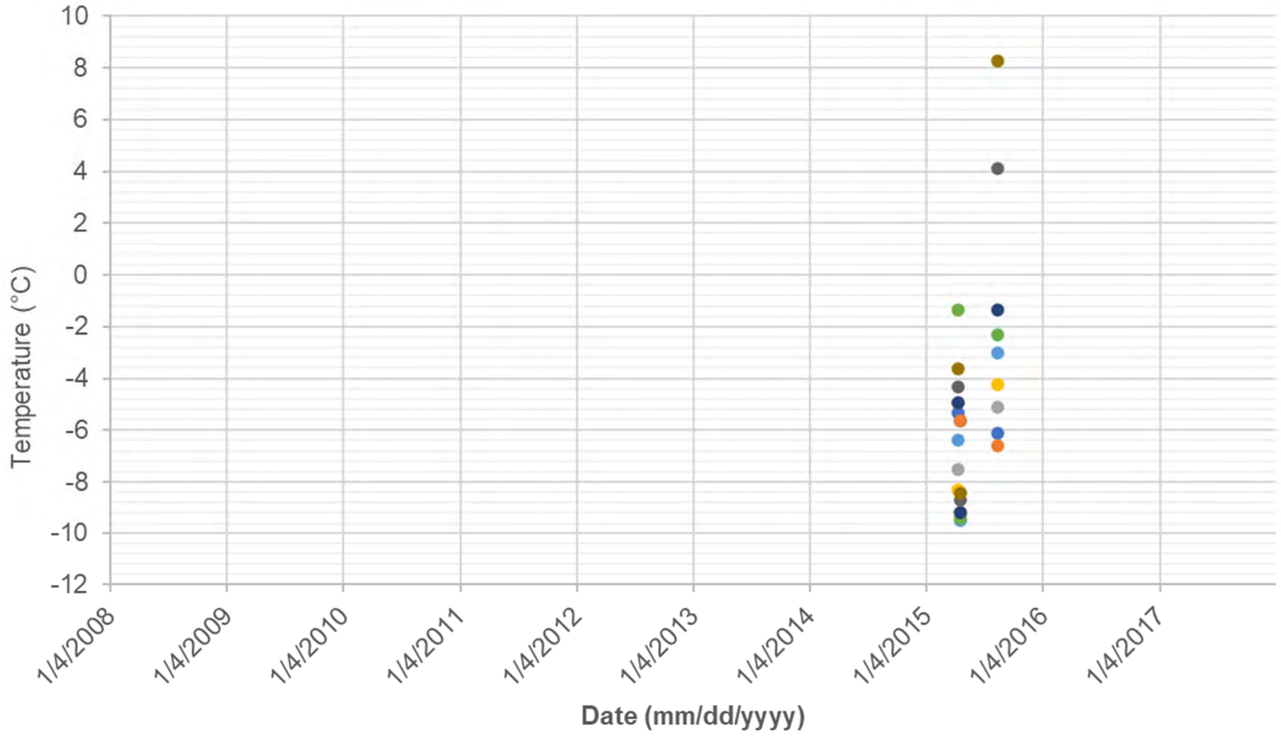

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 11:05

15-DH19

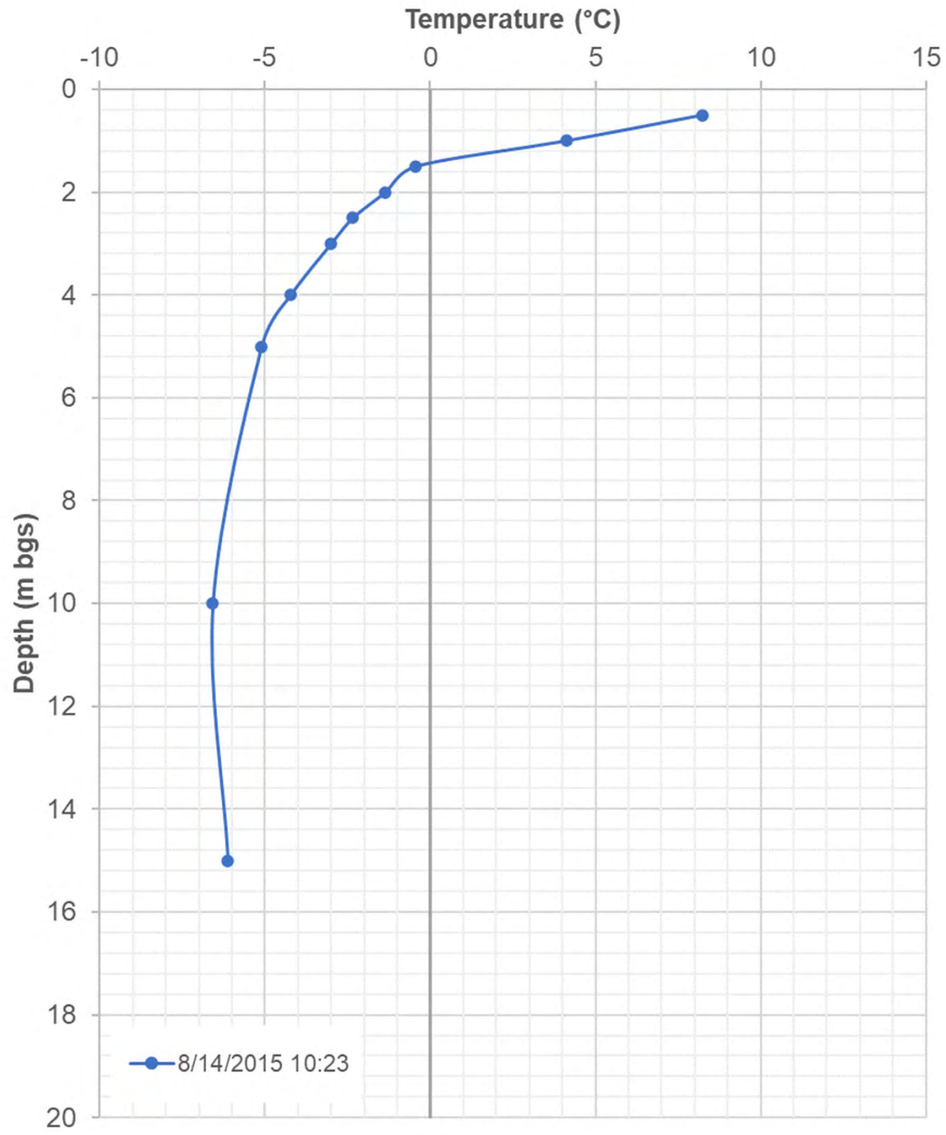

8
6
4
2
0
-2
-4
-6
-8
-10
-12
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5


Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:35

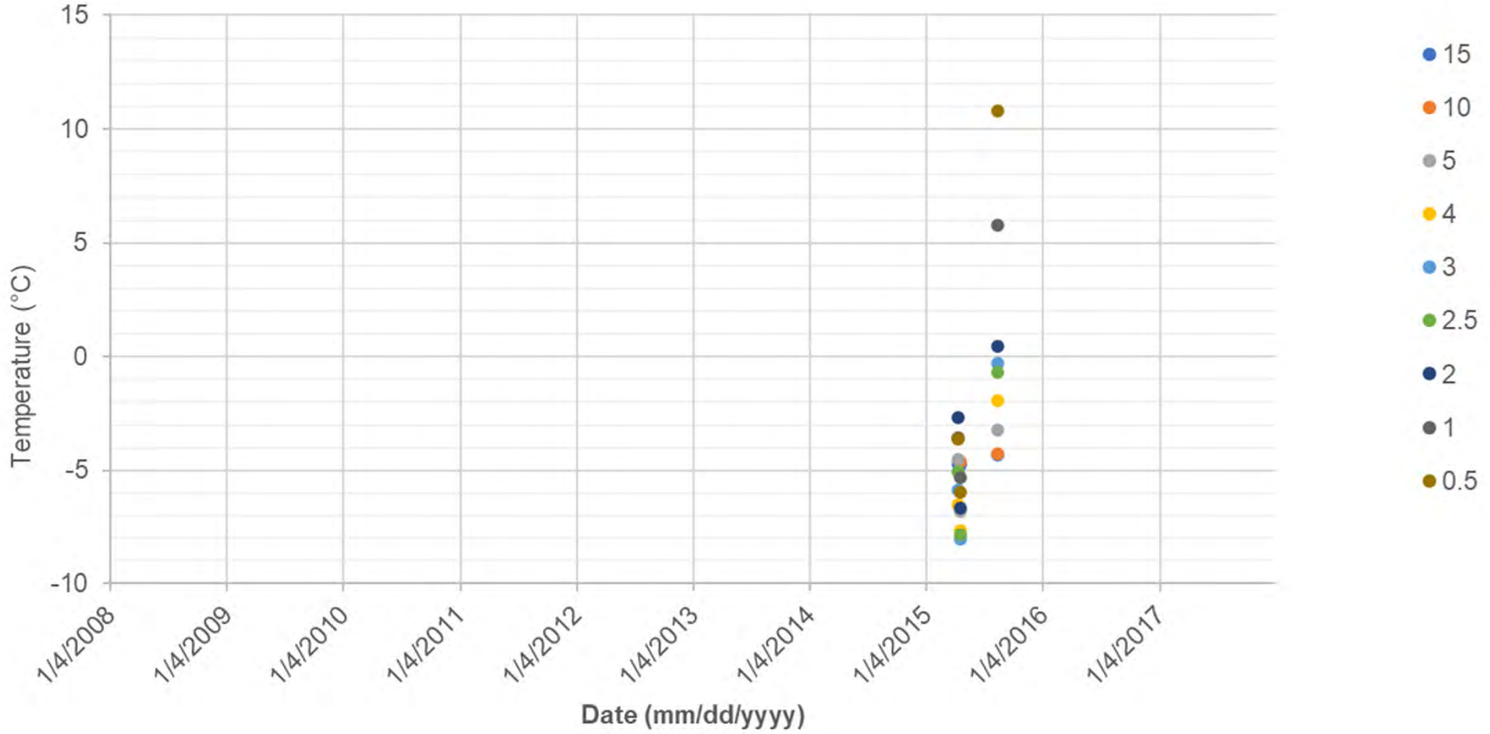
15-DH20

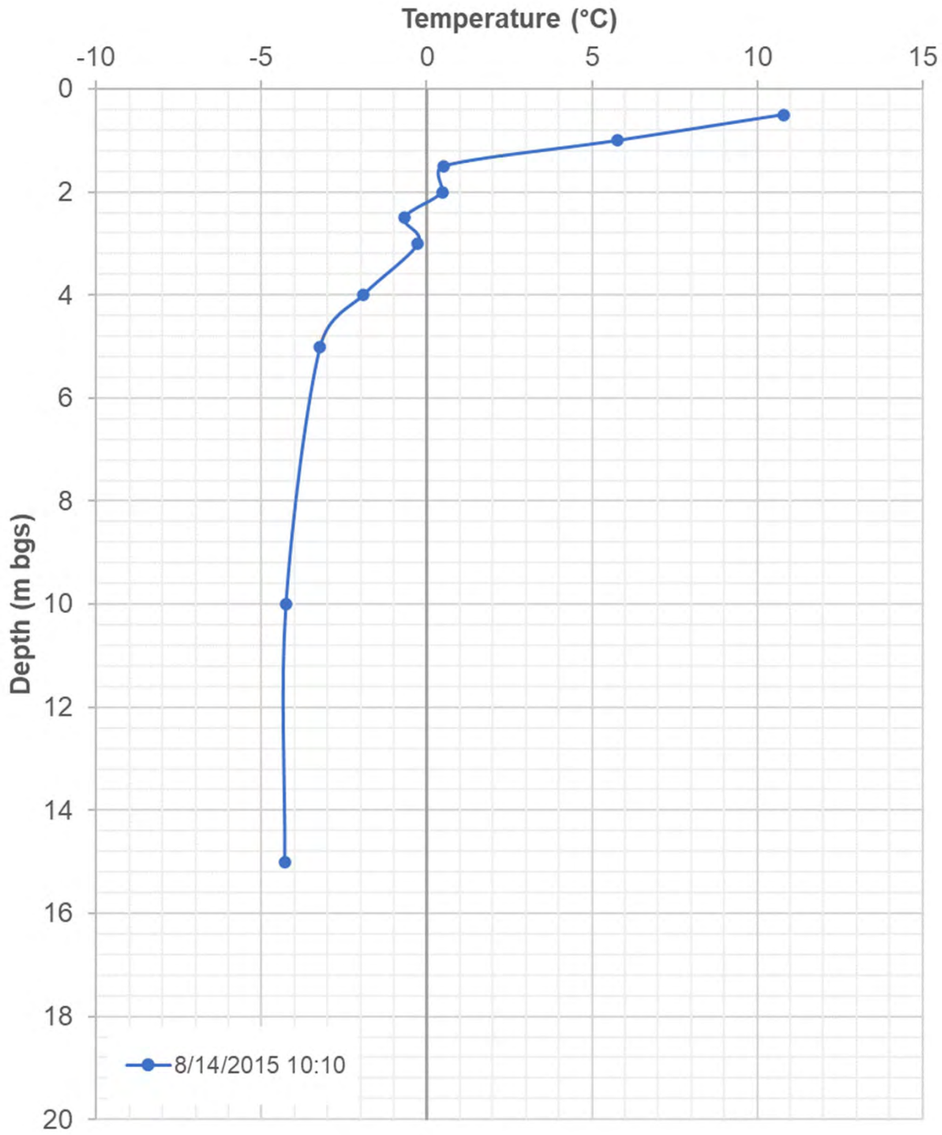

10
8
6
4
2
0
-2
-4
-6
-8
-10
-12
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)


15
10
5
4
3
2.5
2
1
0.5

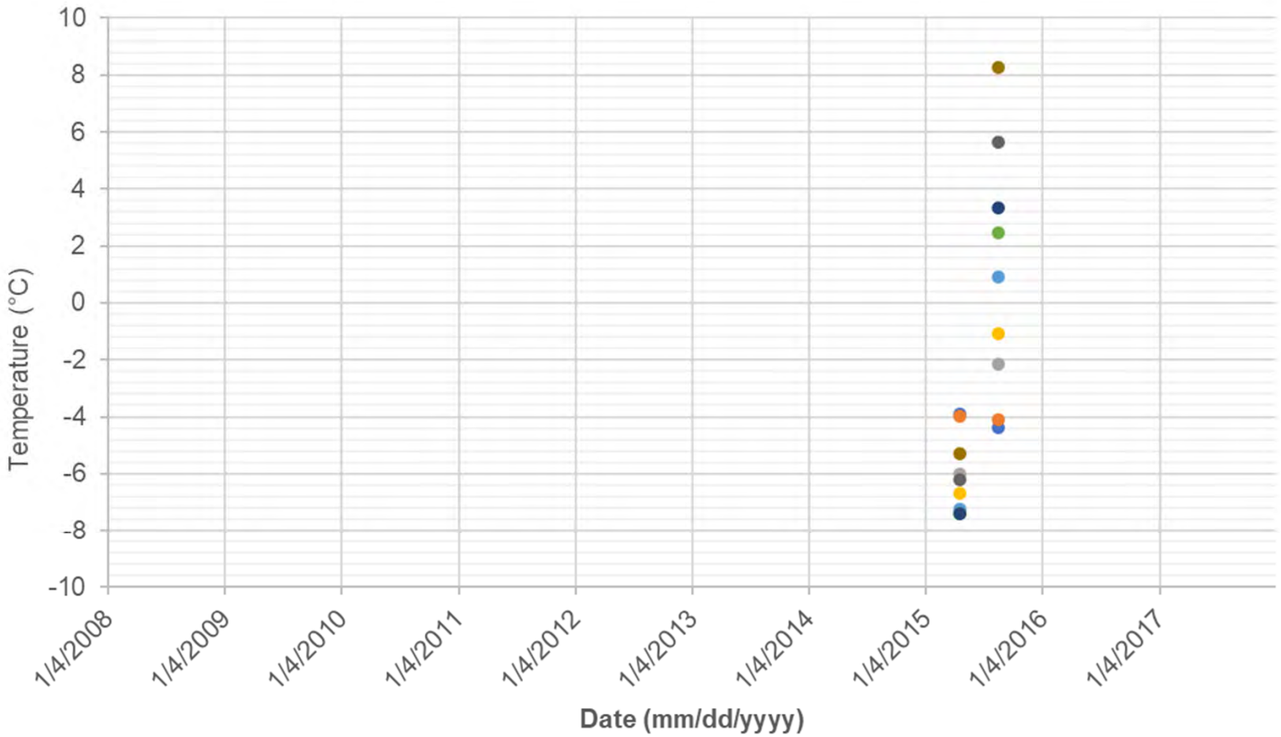

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:23

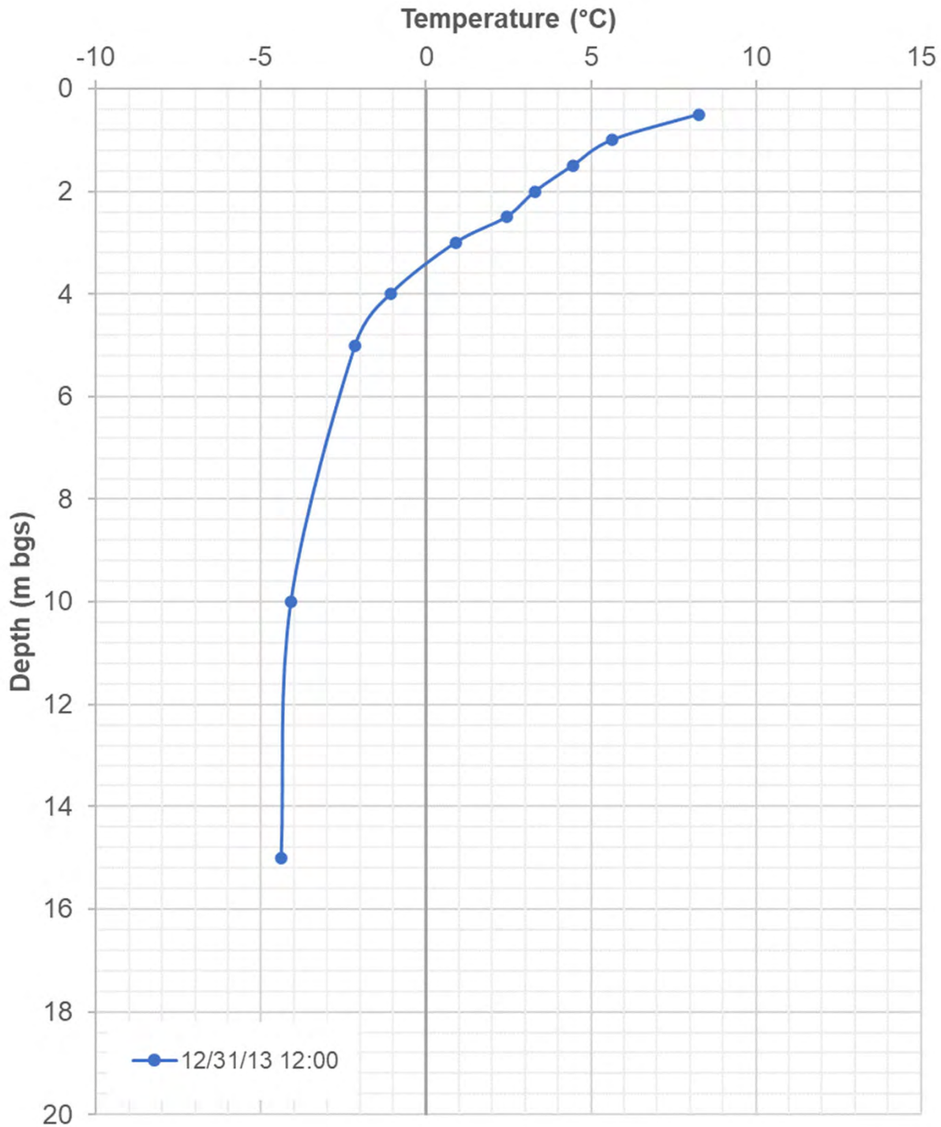
15-DH21


15
10
5
0
-5
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5

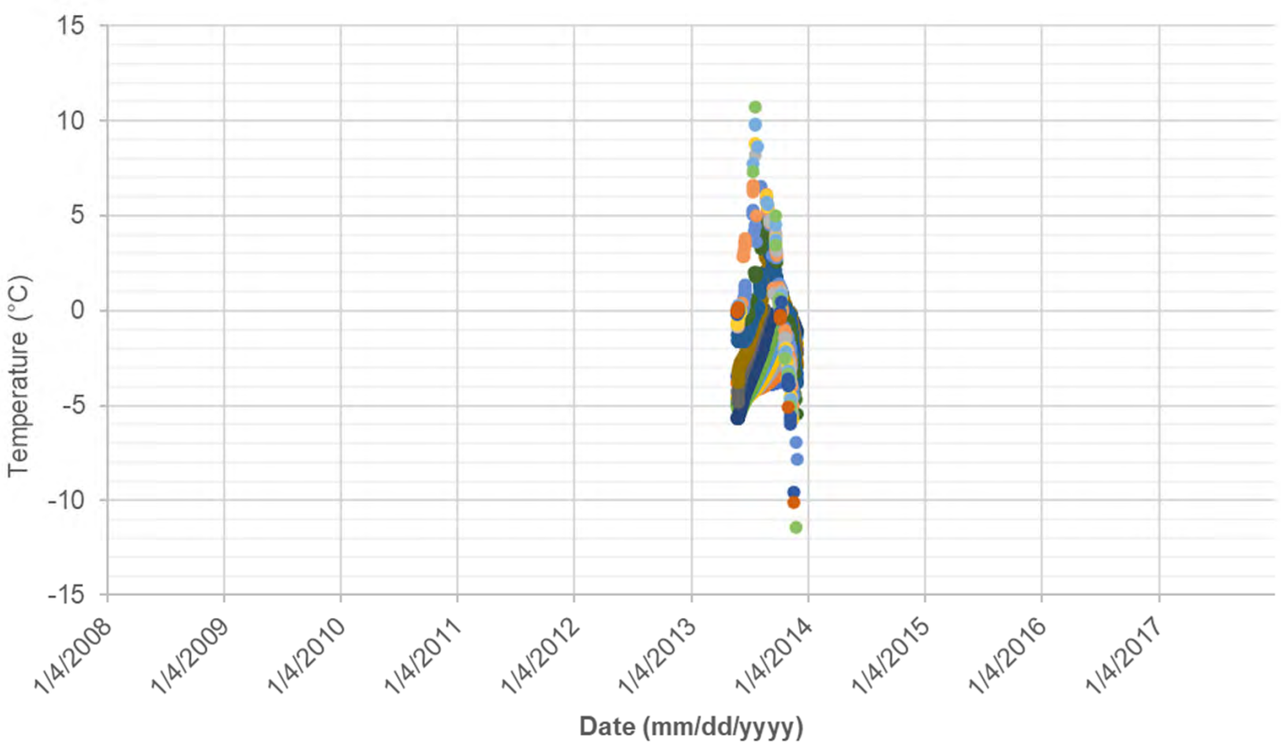

Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
8/14/2015 10:10

15-DH26


10
8
6
4
2
0
-2
-4
-6
-8
-10
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
15
10
5
4
3
2.5
2
1
0.5


Temperature (°C)
-10
-5
0
5
10
15
0
2
4
6
8
10
12
14
16
18
20
Depth (m bgs)
12/31/13 12:00

TIA-GT13-03


15
10
5
0
-5
-10
-15
Temperature (°C)
1/4/2008
1/4/2009
1/4/2010
1/4/2011
1/4/2012
1/4/2013
1/4/2014
1/4/2015
1/4/2016
1/4/2017
Date (mm/dd/yyyy)
16.45
13.45
11.45
10.45
9.45
8.45
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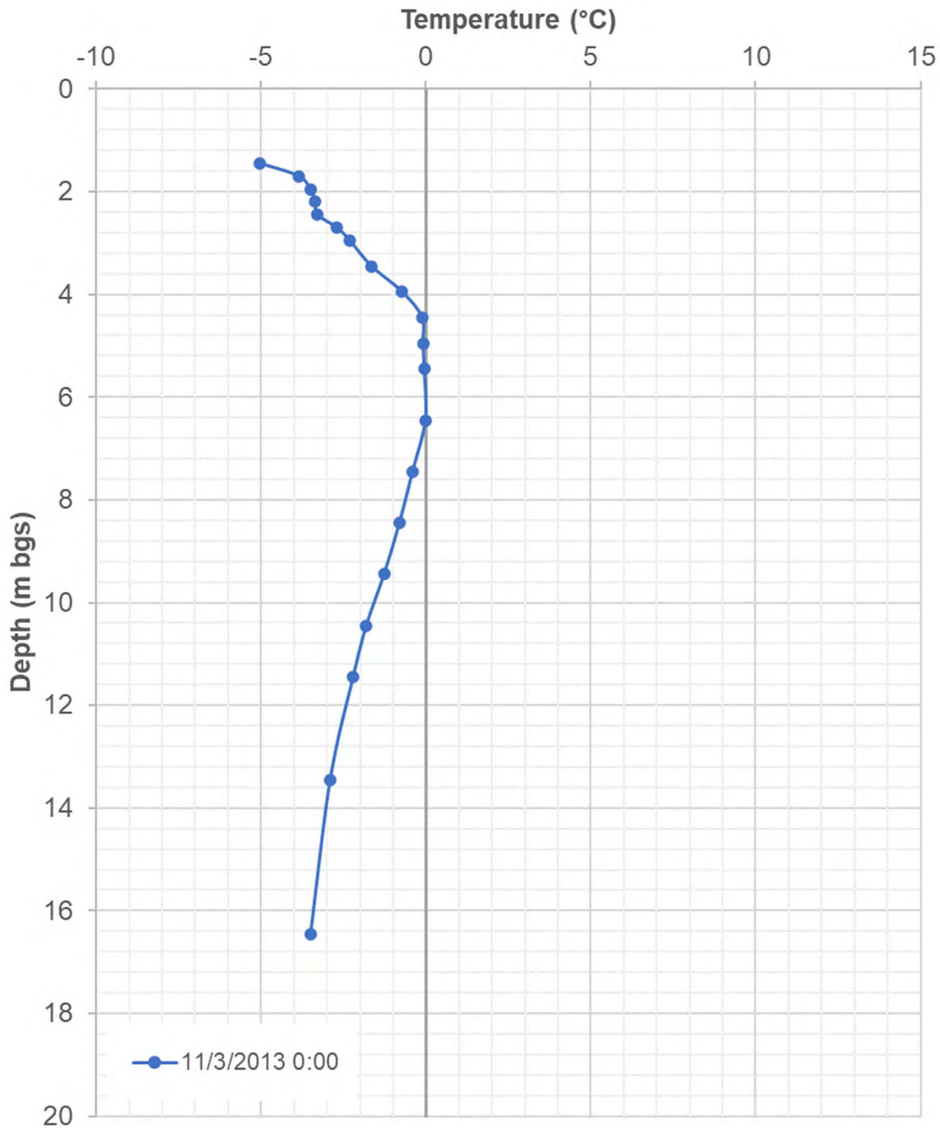
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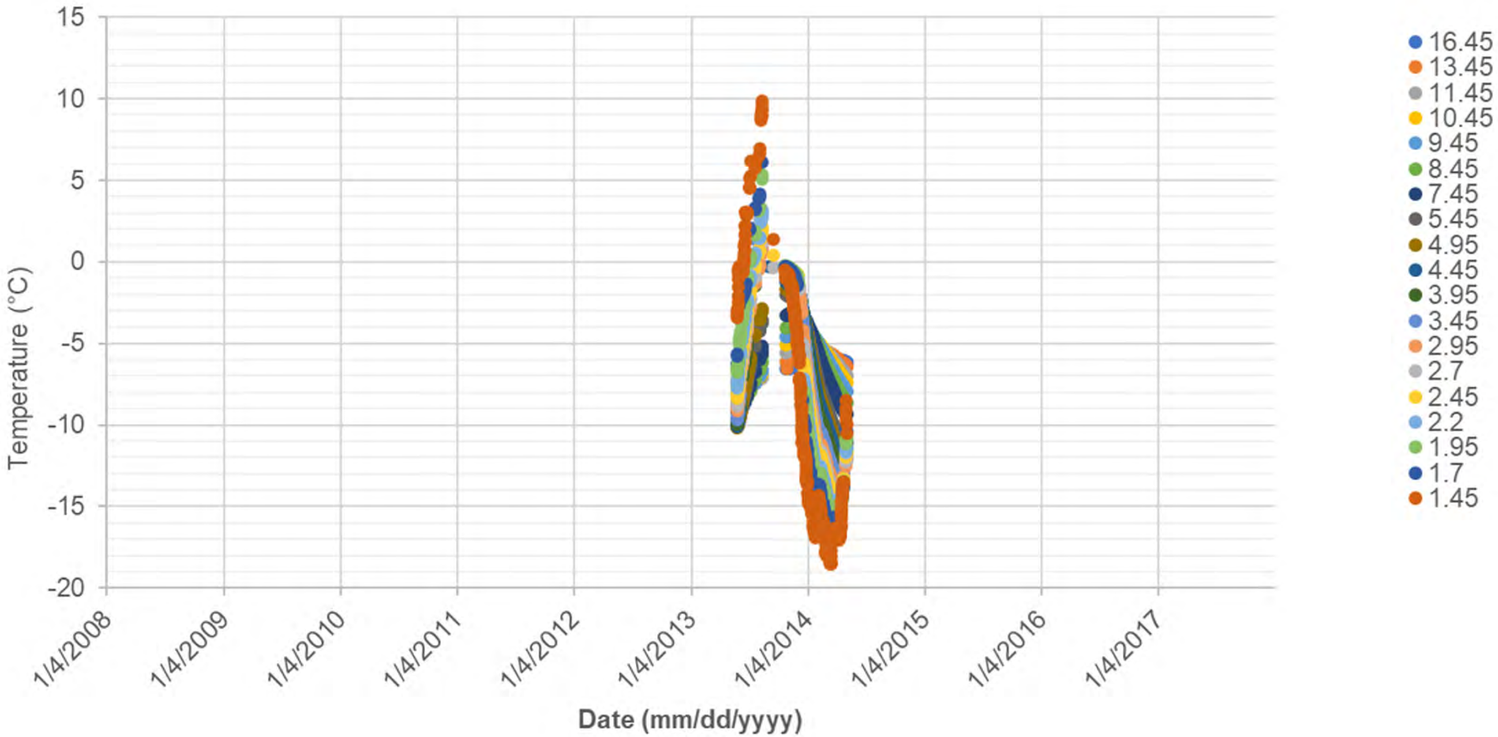
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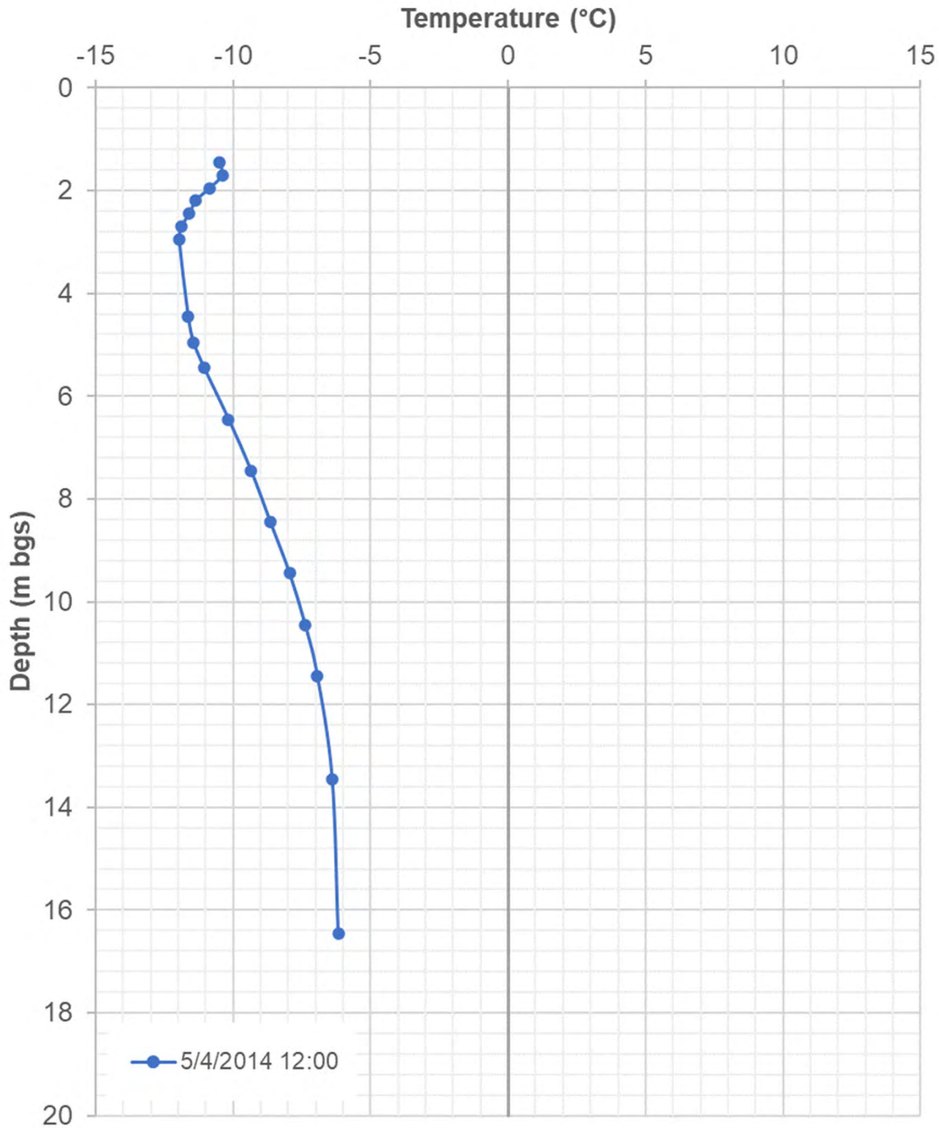
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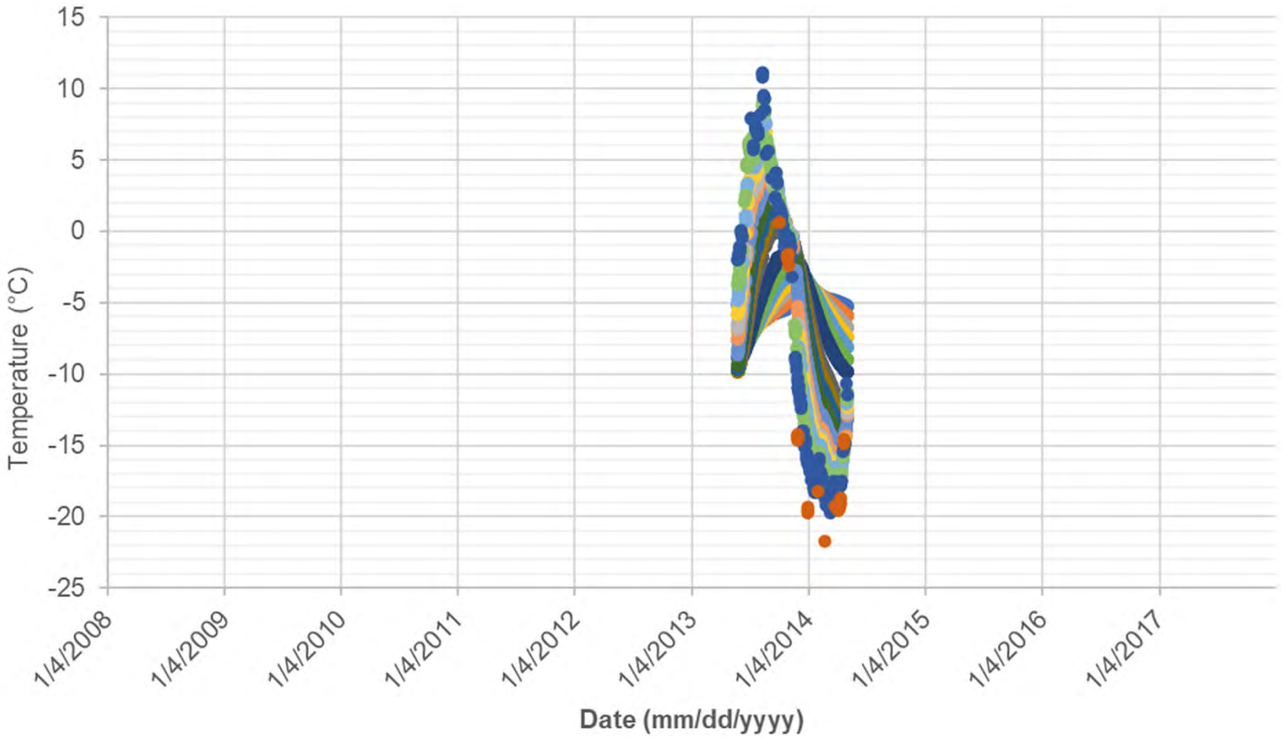
TIA-GT13-15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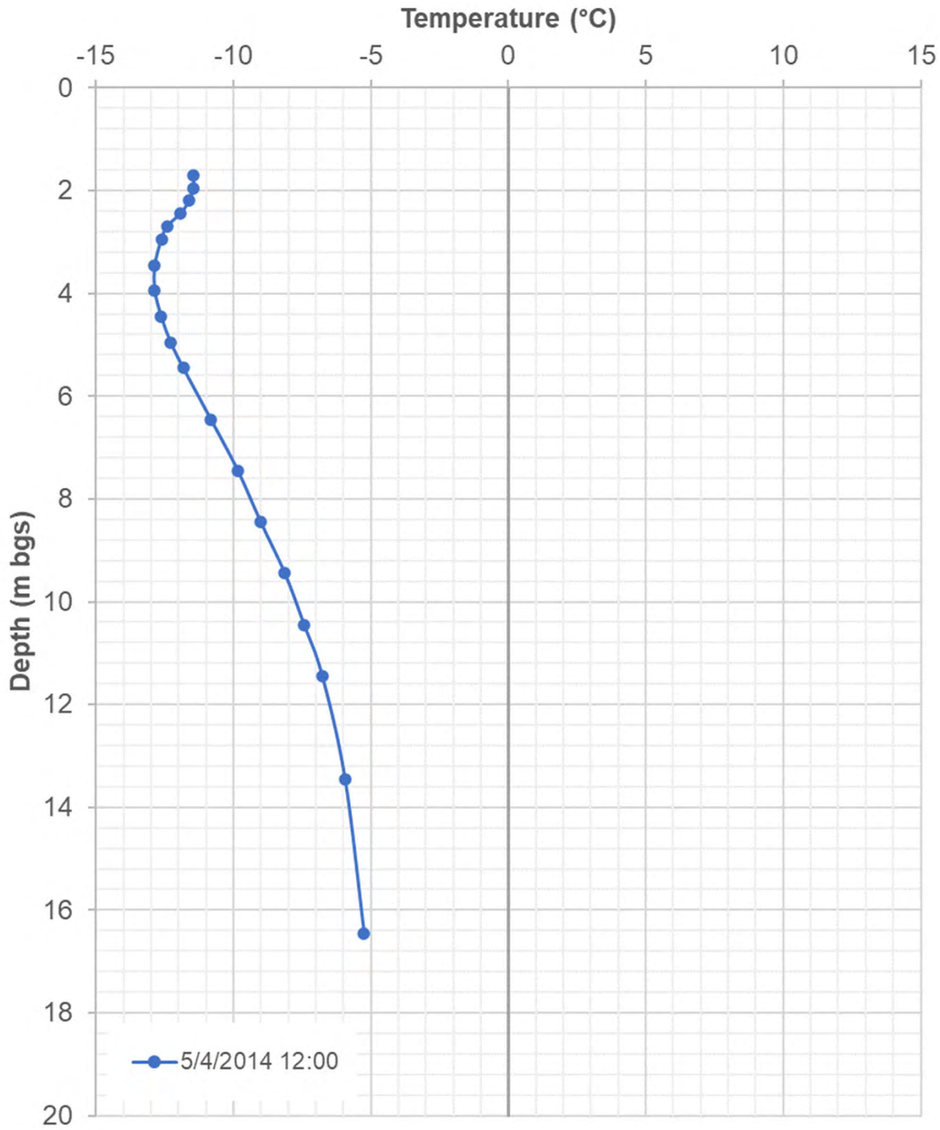
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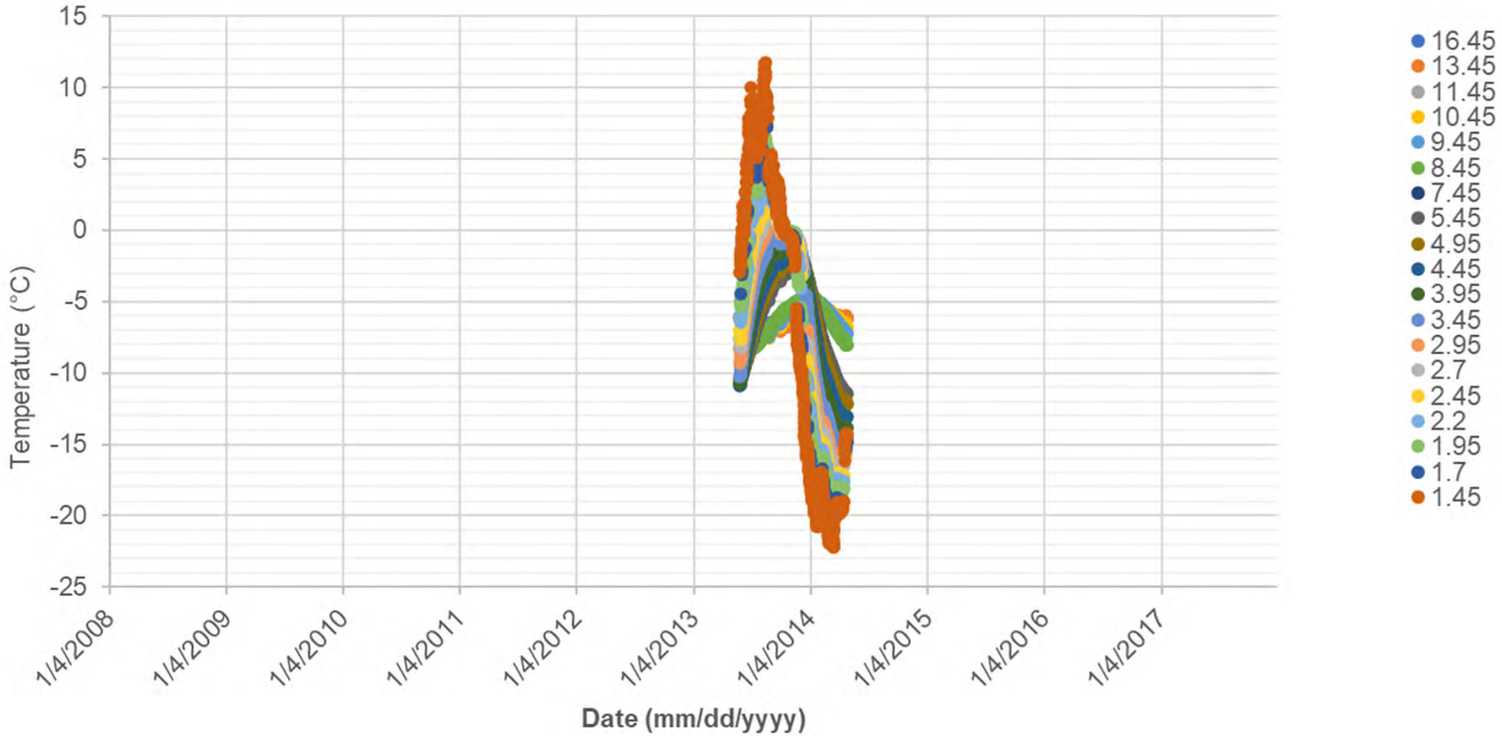
TIA-GT13-16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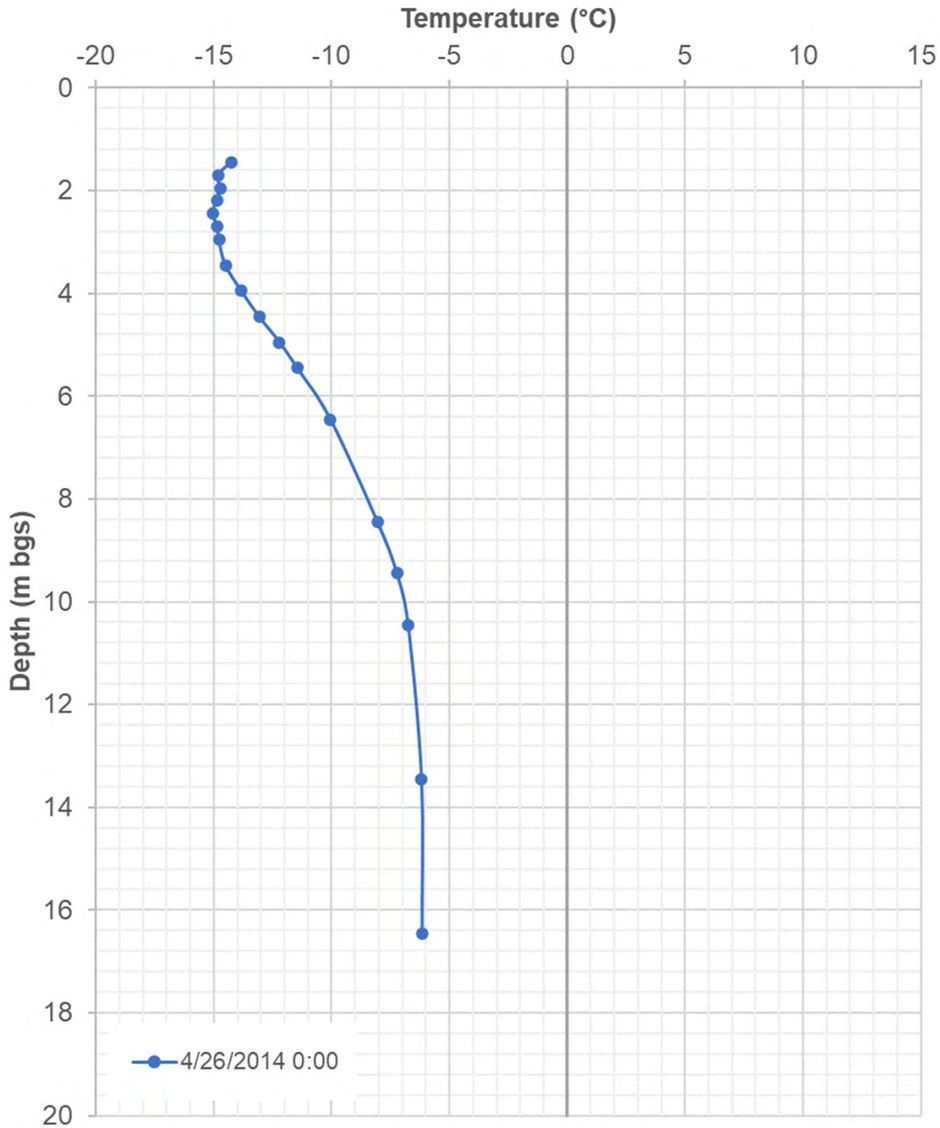
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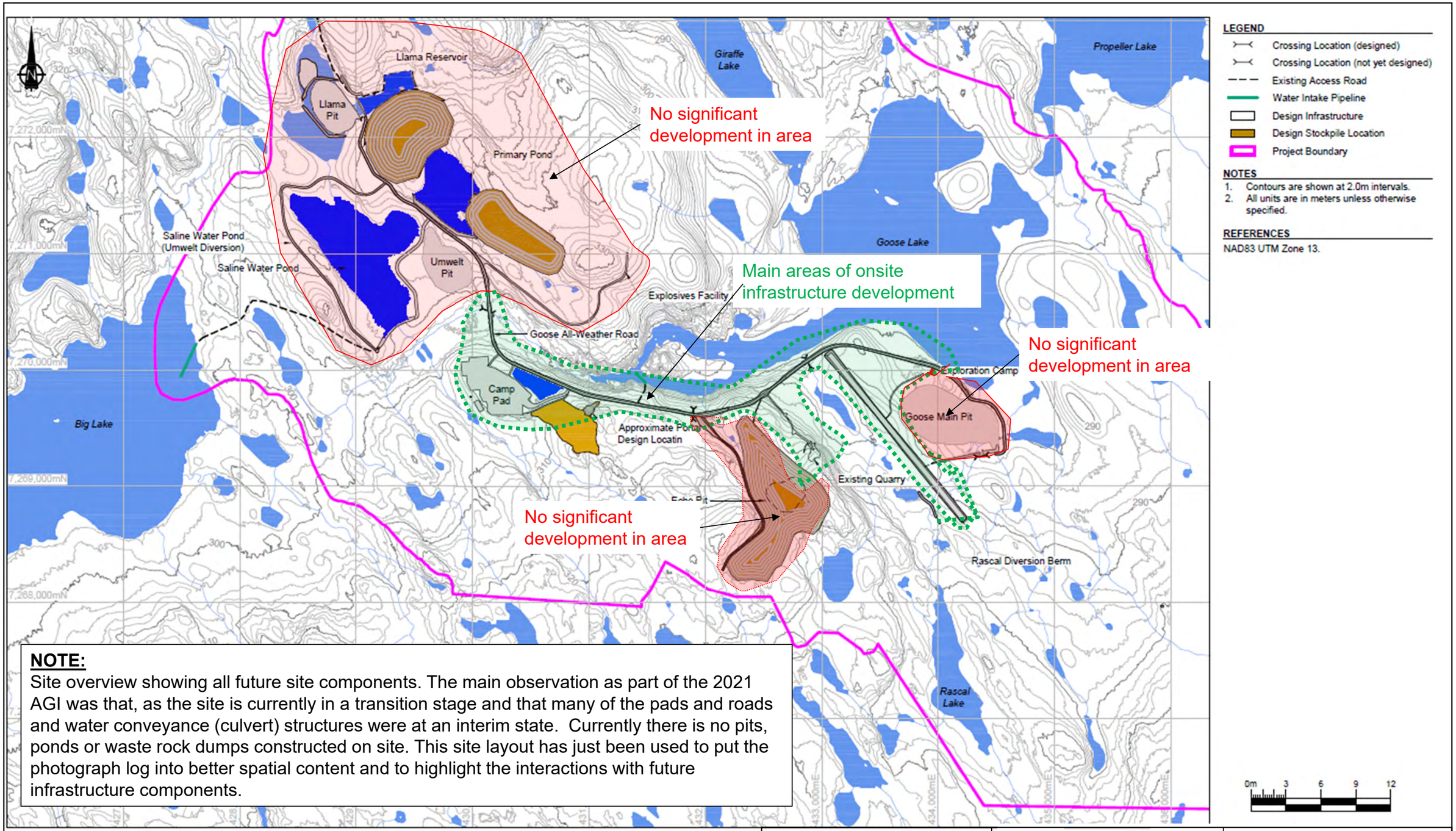
Attachment 3 Photolog from July 2021 Site Visit



LEGEND

- Crossing Location (designed)
- Crossing Location (not yet designed)
- Existing Access Road
- Water Intake Pipeline
- Design Infrastructure
- Design Stockpile Location
- Project Boundary

NOTES

1. Contours are shown at 2.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.

NOTE:

Site overview showing all future site components. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Currently there is no pits, ponds or waste rock dumps constructed on site. This site layout has just been used to put the photograph log into better spatial content and to highlight the interactions with future infrastructure components.

Refference: Back River Project, Goose Site. General Arrangement, Drawing No. GOOSE-1. Dated April 2020

srk consulting

Job No: 1CS020.021

Filename: BackRiver_2021GeotechInspection_PhotoLog

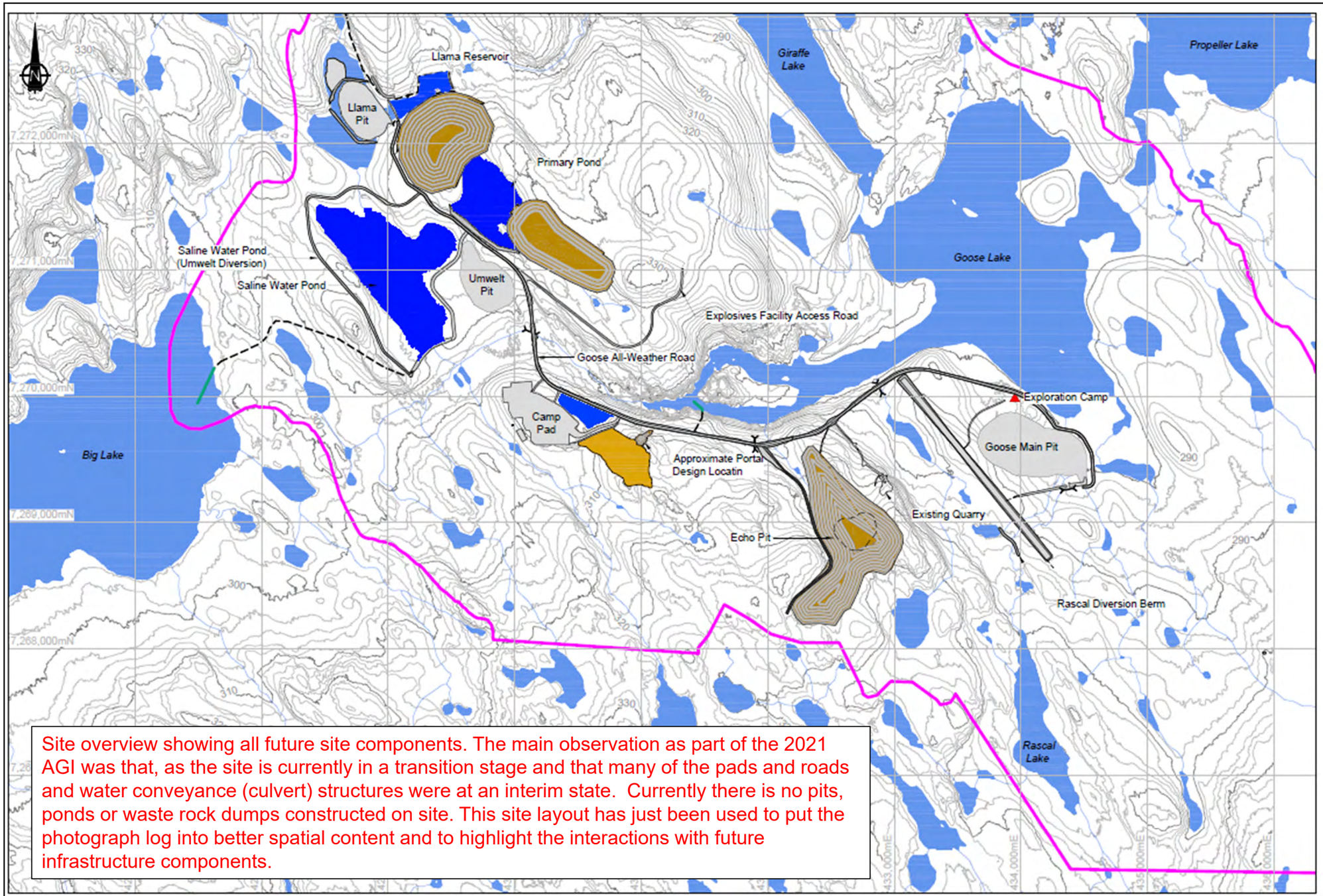
Sabina GOLD & SILVER CORP.

Back River Project

2021 Geotechnical Inspection

Future Site Layout – Plan Overview

Date: Feb 2022 | Approved: DG / JBK | Figure: **1a**



Site overview showing all future site components. The main observation as part of the 2021 AGI was that, as the site is currently in a transition stage and that many of the pads and roads and water conveyance (culvert) structures were at an interim state. Currently there is no pits, ponds or waste rock dumps constructed on site. This site layout has just been used to put the photograph log into better spatial content and to highlight the interactions with future infrastructure components.

LEGEND

- Crossing Location (designed)
- Crossing Location (not yet designed)
- Existing Access Road
- Water Intake Pipeline
- Design Infrastructure
- Design Stockpile Location
- Project Boundary

NOTES

1. Contours are shown at 2.0m intervals.
2. All units are in meters unless otherwise specified.

REFERENCES

NAD83 UTM Zone 13.

0m 3 6 9 12

Refference: Back River Project, Goose Site. General Arrangement, Drawing No. GOOSE-1. Dated April 2020

srk consulting

Job No: 1CS020.021
Filename: BackRiver_2021GeotechInspection_PhotoLog

Sabina GOLD & SILVER CORP

Back River Project

2021 Geotechnical Inspection

Future Site Layout – Plan Overview Without Notes

Date: Feb 2022 | Approved: DG / JBK | Figure: **1b**

Photo 1 – view looking in southerly direction along airstrip

Photo 3 – View looking in southerly direction along airstrip

Photo 2 – View looking in southerly direction along airstrip, water management channel in place.

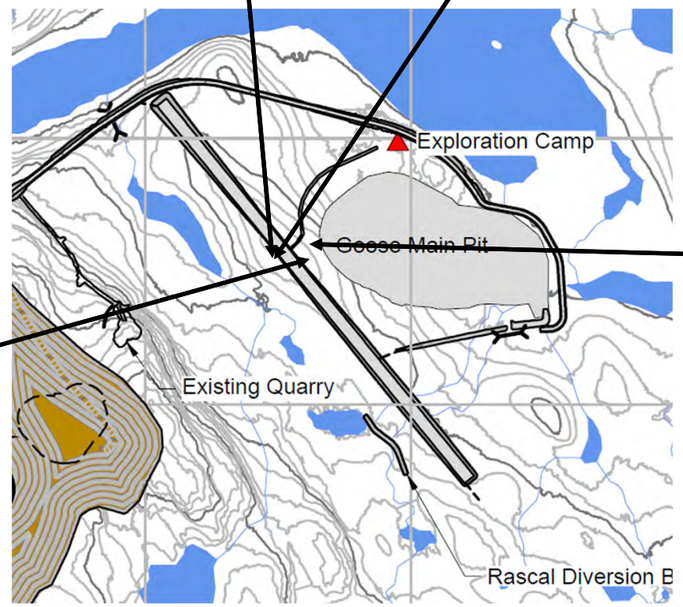


Photo 4 – view looking in southerly direction along airstrip. Note larger natural water bodies on right of photo. Water then flows towards airstrip

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **2**

Photo 5

Photo 7 – view southeast of ponded water

Photo 8 – water flow looking north, water travels towards airstrip and diverted to the southwest.

Photo 6

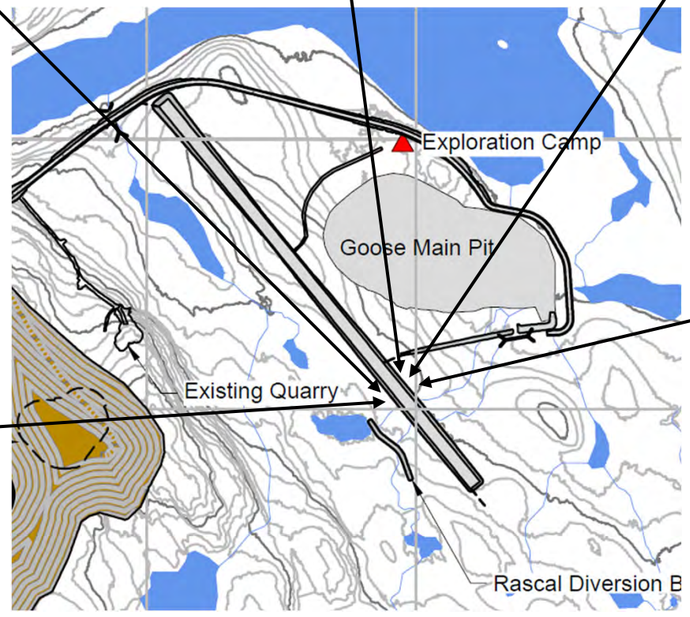


Photo 9 – Water ponded and flowing towards southeast

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Airstrip**
		Date: Feb 2022 / Approved: DG / JBK / Figure: **3**

Photo 10

Photo 12

Photo 13 – Southern end of airstrip, note thin fill thickness

Photo 11

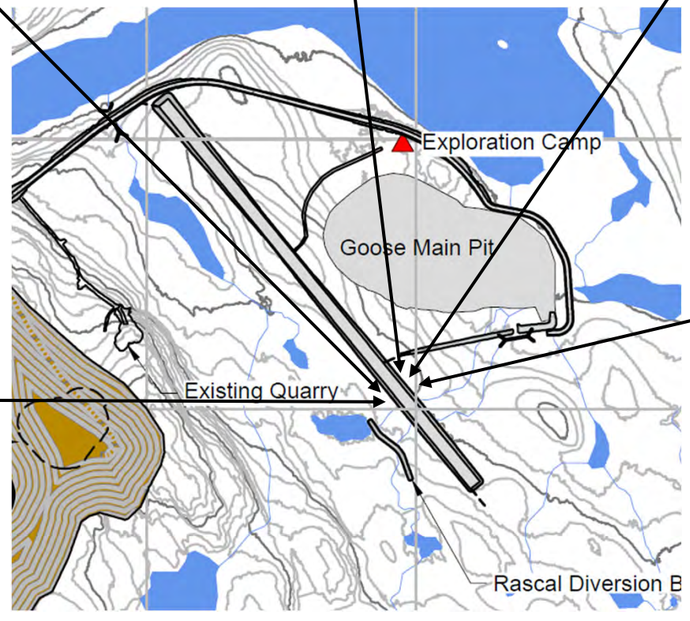


Photo 14 – Water ponding at southern point of airstrip, flow continues southeast

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **4**

Photo 15 - Water flow away from the airstrip towards the southeast

Photo 16 – Water flow away from the airstrip towards the southeast

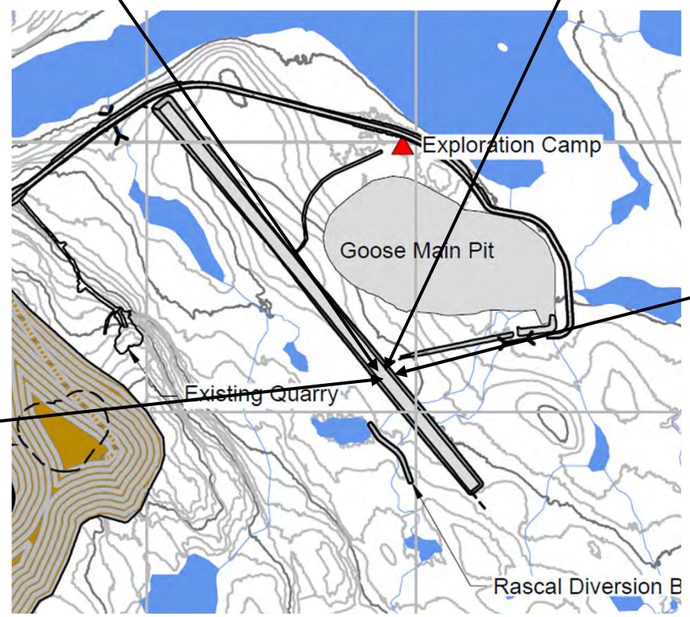


Photo 17 - Water flow away from the airstrip towards the southeast

Photo 18 – water ponding at southern end of airstrip, also note think airstrip fill.

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **5**

Photo 19 – water flow around airstrip towards southeast

Photo 21

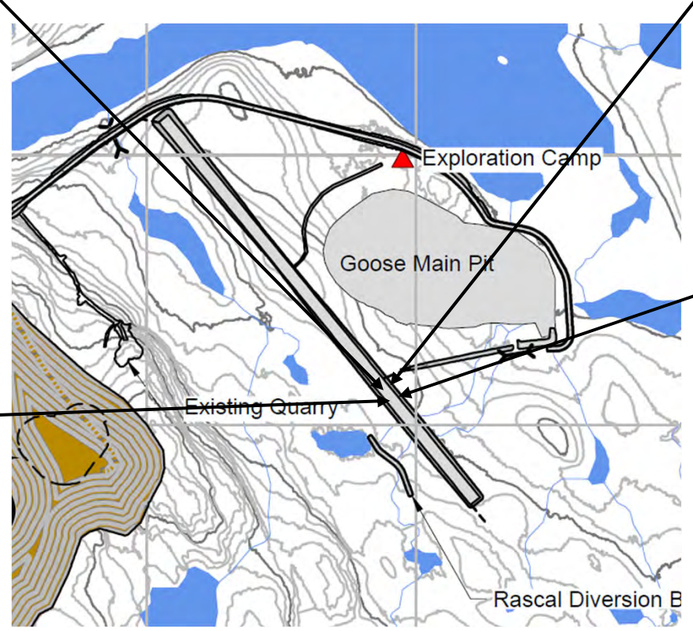


Photo 22 – southern end of airstrip, note thick airstrip fill thickness; geotextile exposed.

Photo 20

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Airstrip** Date: Feb 2022 · Approved: DG / JBK · Figure: **6**

Photo 23

Photo 25

Photo 26 – Southern end of airstrip where think fill note, no cracking or undulation observed

Photo 24

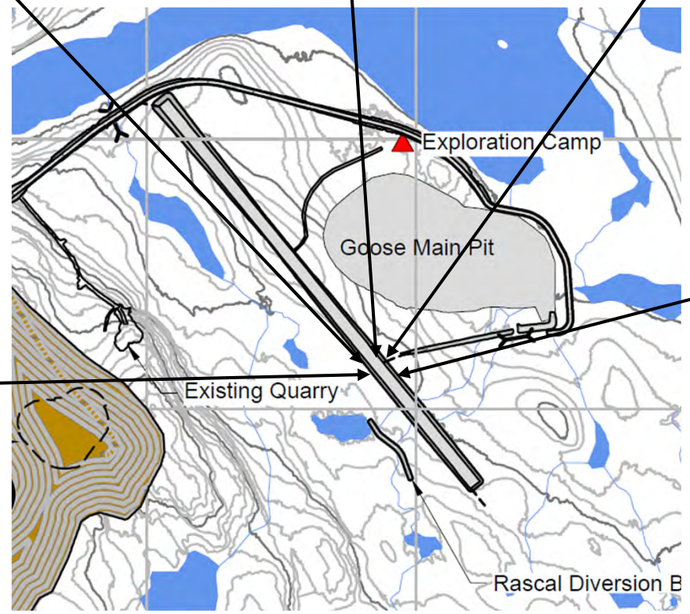


Photo 27 – View northerly direction of airstrip surface, no cracking observed despite lower fill thickness

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **7**

Photo 28 – Northern end of airstrip

Photo 29 - Northern end of airstrip

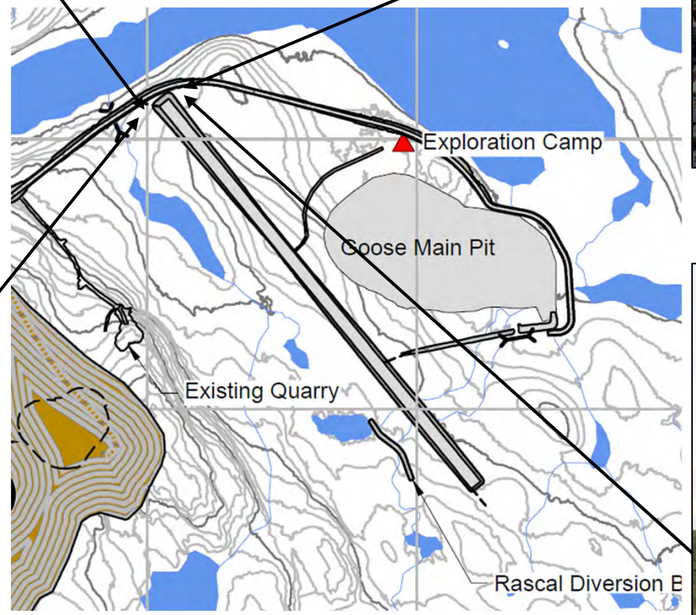


Photo 30 - Northern end of airstrip

Photo 40 - Northern end of airstrip

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Airstrip
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **8**

Photo 1 – Outlet, note rocks placed to dissipate water energy at culvert outlet.

Photo 2 – Inlet, no ponding observed

Note: Culvert #1 is a small operation culvert (not a main flow path). This is located northwest of the exploration camp area

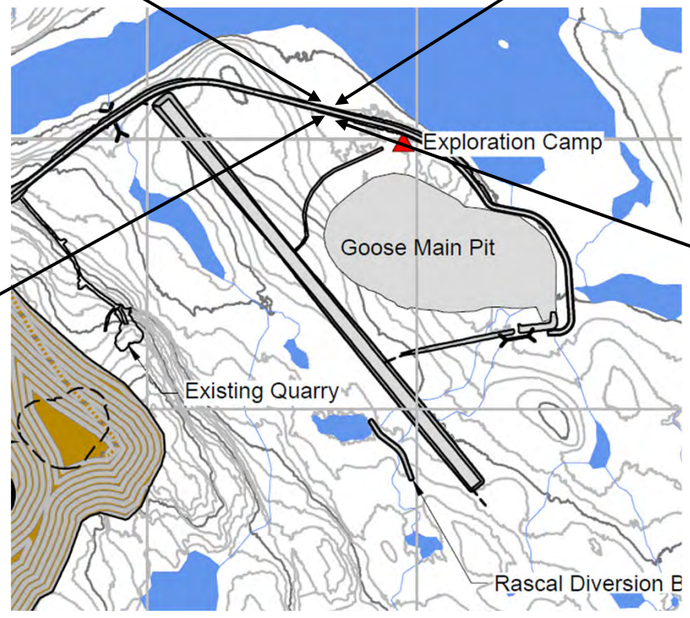


Photo 3 - Outlet, note rocks placed to dissipate water energy at culvert outlet. Cover above pipe may be insufficient/problematic when traversed by larger vehicles.

Photo 4 - Intel

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Operation Culvert
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **9**

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two). Providing photos of this location for completeness.

Photo 5 - Inlet

Photo 7 - Outlet

Photo 8

Photo 6 - Outlet

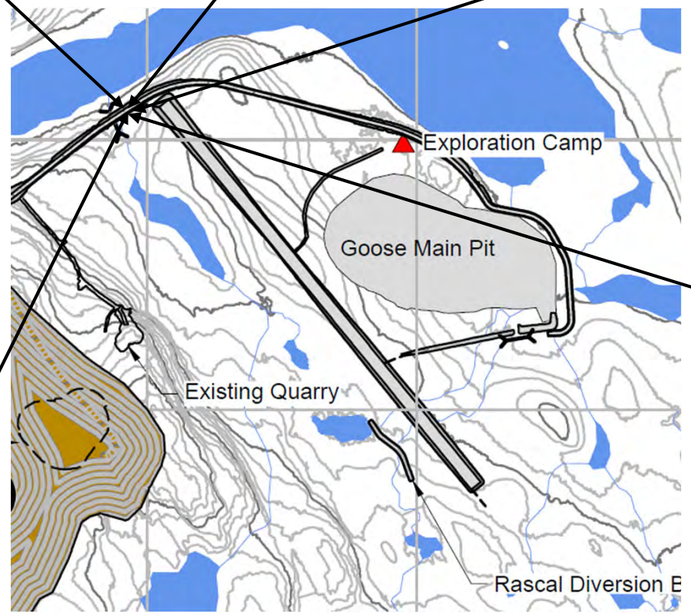


Photo 9 - Outlet

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Rascal Crossing (Bridge 1)** Date: Feb 2022 / Approved: DG / JBK / Figure: **10**

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two).

Photo 10

Photo 12

Photo 13

Photo 11

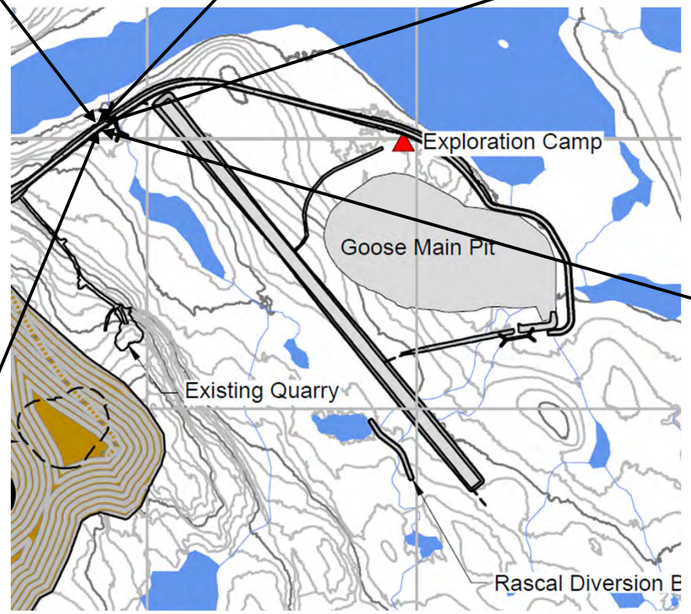


Photo 14

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	**Rascal Crossing (Bridge 2)** Date: Feb 2022 / Approved: DG / JBK / Figure: **11**

Photo 15

Photo 16

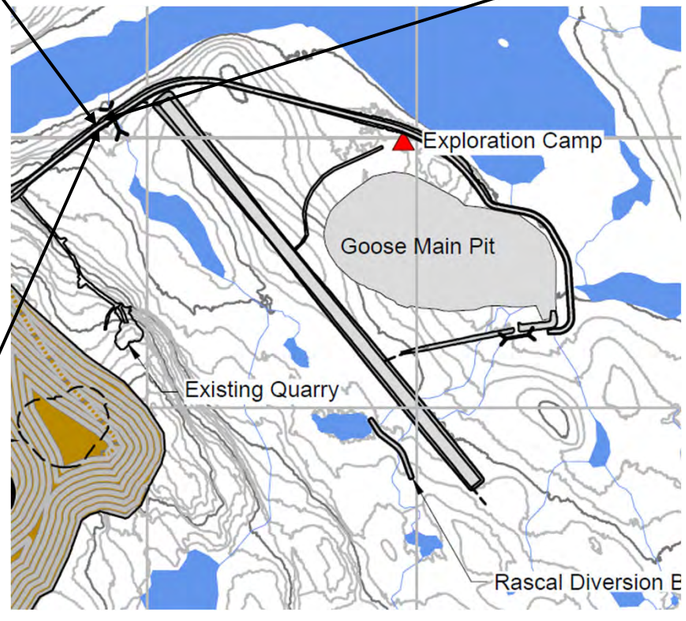


Photo 17

Note: The current Rascal crossings (bridges) are a temporary measure. Sabina had outlined that more permanent, larger diameter culverts have been procured and are planned to be installed at these locations in the future (and the temporary bridge crossing removed). Focus on inspection was mainly looking at flow paths. No checks on any structural components (to be done by others such as the design engineers). These are a temporary measure that are planned to be removed in the short term (next year or two). Providing photos of this location for completeness.

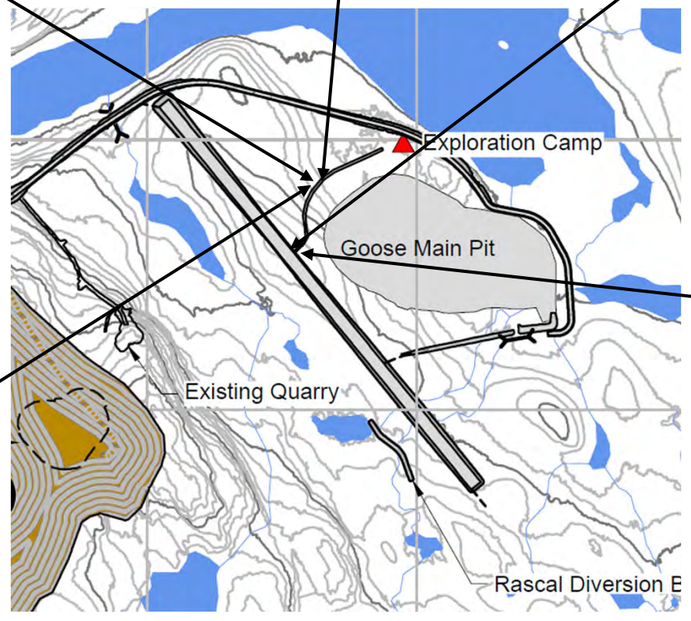
srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Rascal Crossing(Bridge 2)
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **12**

Note that culvert #3, and 4 are small operation culverts (not a main flow path). These are located on the historic access road from the exploration camp to the airstrip

Photo 18 – Culvert invert at outlet below tundra surface

Photo 19

Photo 20



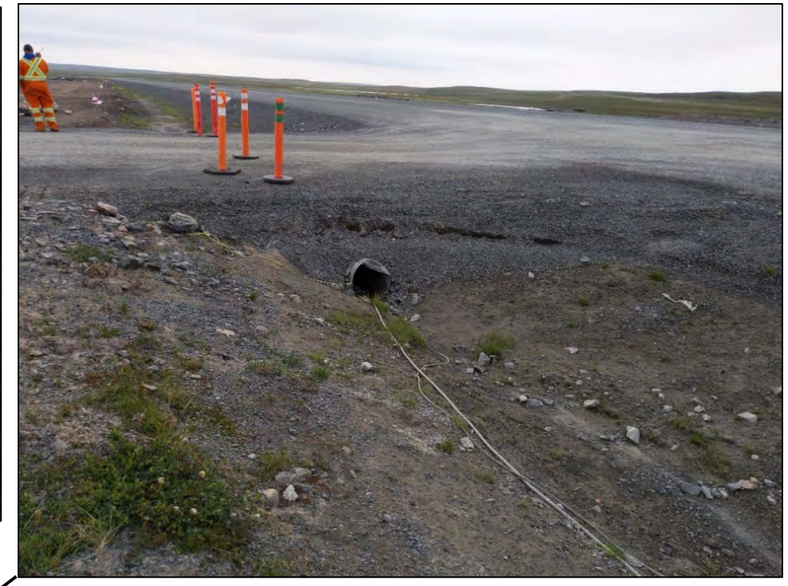


Photo 21 – Culvert along airstrip channel along northern edge

Photo 22

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Culverts Noted Along Historic Exploration Airstrip Access Road
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **13**

Photo 23

Photo 25

Photo 26

Photo 24

Photo 27

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Echo Crossing / Culverts
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **14**

Note that the culverts shown in the photos below are small operation culverts (not on main flow path). These have been used on site to help increase water management and avoid ponding against road (good practice to assist with limiting permafrost degradation).

Photo 23

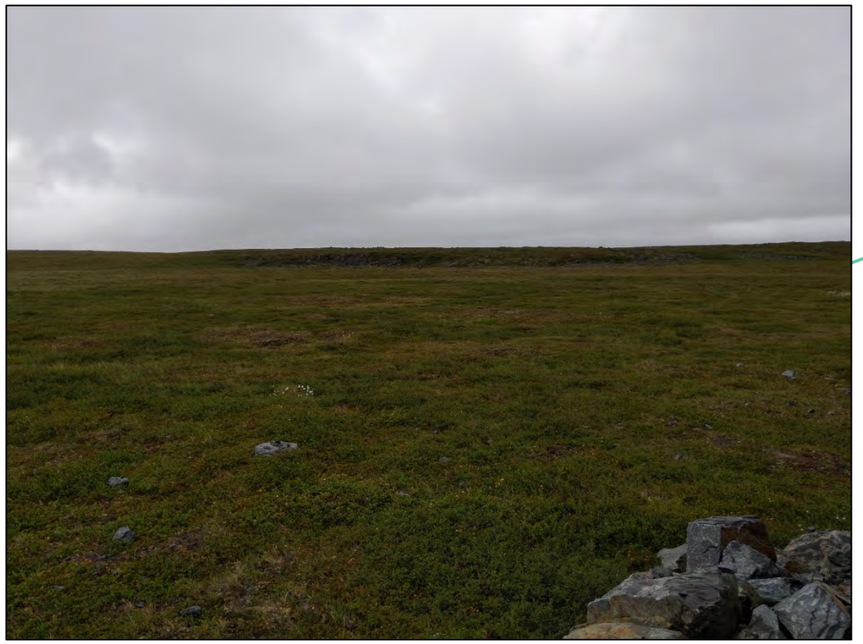


Photo 24

Photo 25

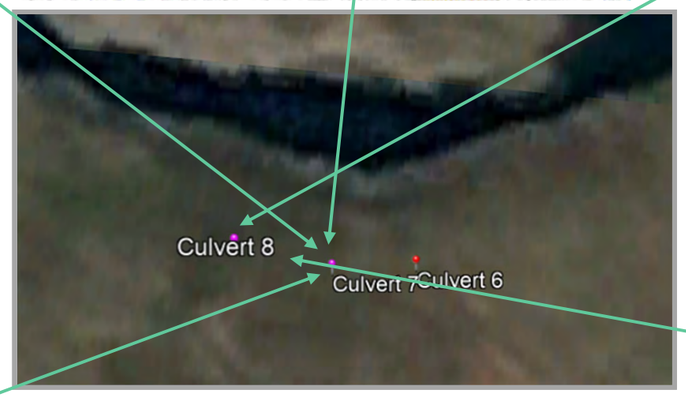


Photo 26

Photo 27

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Small Operation Culverts
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **15**

Photo 1

Photo 3

Photo 4 – Boulders blocking vehicle access

Photo 2

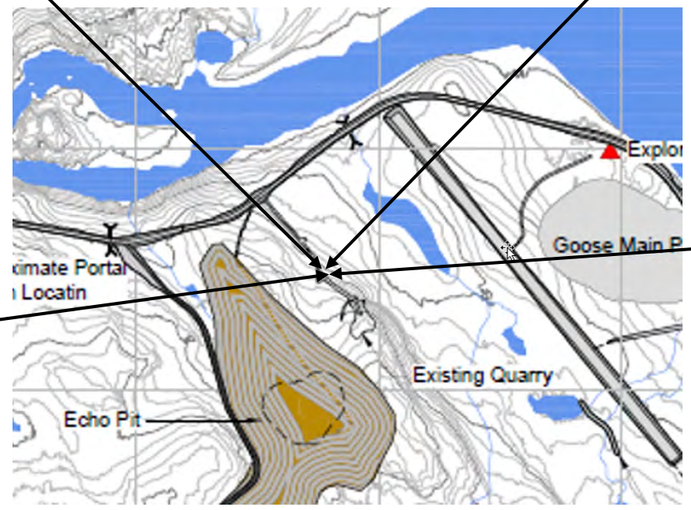
Photo 5 – no signage prohibiting access by foot

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Existing Quarry
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **16**

Road 1 – Photo 1

Road 1 – Photo 3

Road 1 – Photo 2



Road 1 – Photo 4

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Quarry Road
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 · Approved: DG / JBK · Figure: **17**

Photo 1

Note: The Goose portal pad and portal development was outside the scope of this AGI. The portal pad was in active development (interim state) when SRK was on site. Photos provided from completeness / to show site activities at the time of the inspection.

Photo 3

Photo 2

Photo 4

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Portal Photolog
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **18**

Photo 5

Photo 6

Note: The Goose portal pad and portal development was outside the scope of this AGI. The portal pad was in active development (interim state) when SRK was on site. Photos provided from completeness / to show site activities at the time of the inspection.

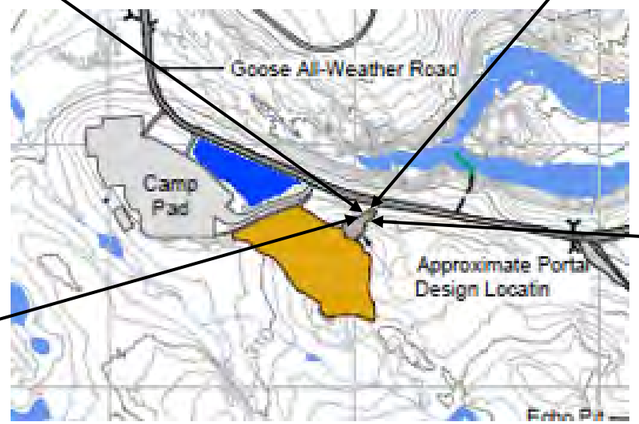


Photo 7

Photo 8 – note portal workshop pad

srk consulting	Sabina GOLD & SILVER CORP.	2021 Back River Geotechnical Inspection
		Portal
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **19**

Photo 1

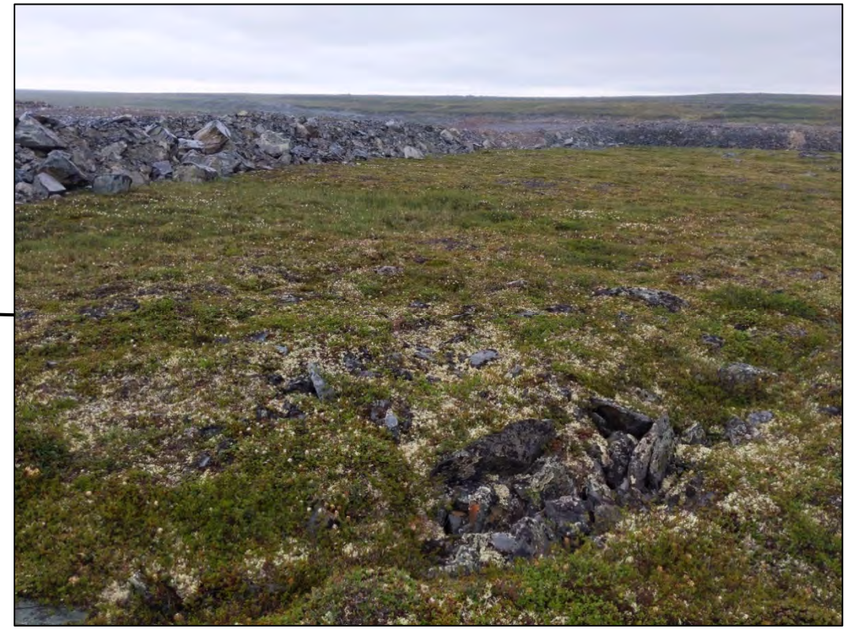


Photo 3

Photo 2

Photo 4

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		Camp Contact Water Pond Footprint
Job No: 1CS020.021 Filename: BackRiver_2021GeotechInspection_PhotoLog	Back River Project	Date: Feb 2022 / Approved: DG / JBK / Figure: **20**

Photo 5

Photo 7

Photo 8

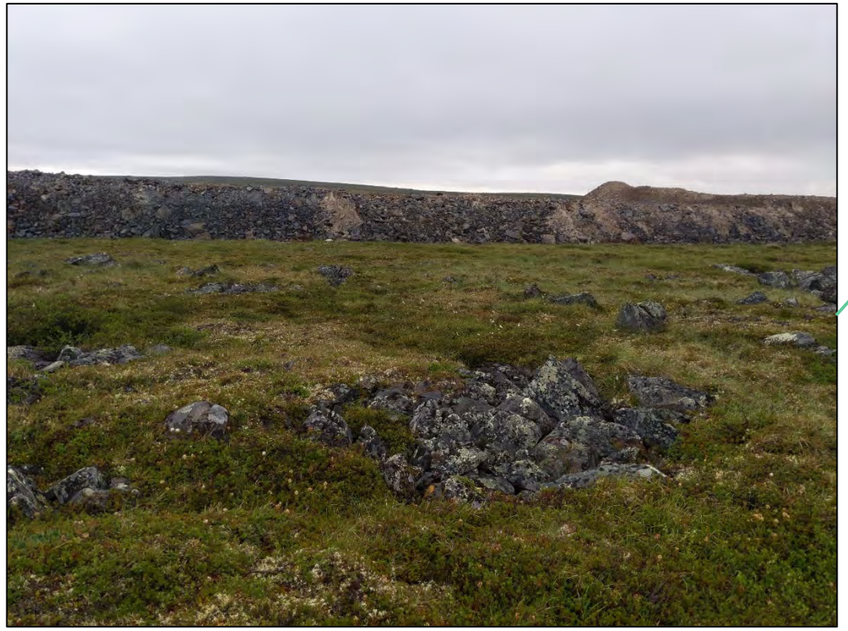

Photo 6

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	Back River Project	**Camp Contact Water Pond Footprint**
		Date: Feb 2022 / Approved: / Figure: **21**

Photo 9 – Some ponded water observed within footprint

Photo 11

Photo 10

Photo 12 – Some ponded water observed within footprint

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	Back River Project	**Camp Contact Water Pond Footprint**		
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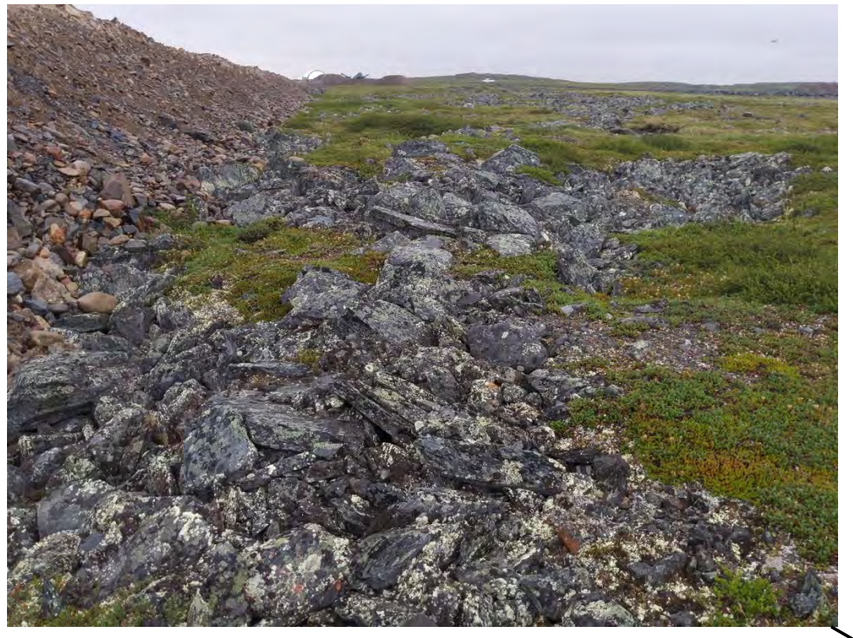

Photo 13

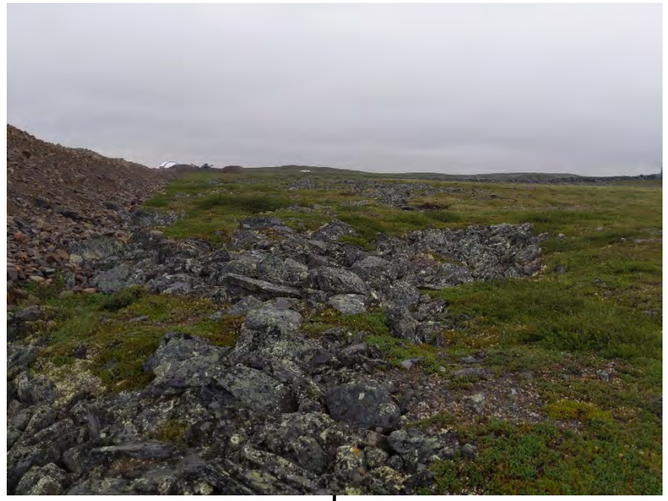

Photo 15

Photo 16 – Fractured rock extending under CWO embankment area

Photo 14 – Fracture rock extending beyond CWP embankment area

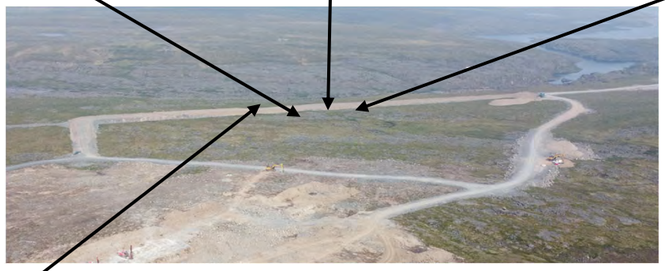

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Photo 17 – View downstream from road

Photo 18

Photo 19

Photo 20

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Photo 21

Photo 22

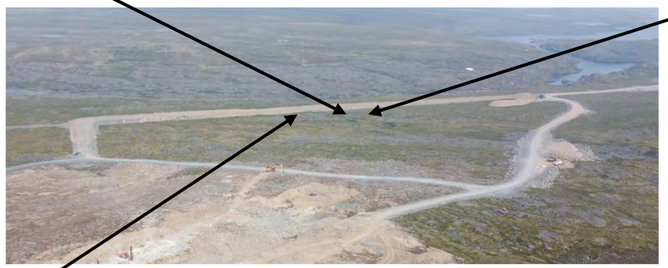

Photo 23 – Note cracks on roadway, road fill ~4 m above tundra

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		Camp Contact Water Pond Footprint
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Photo 24

Photo 25

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Photo 26 – Highly fracture rock outcrop

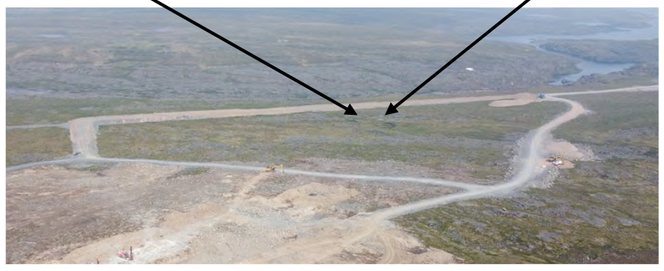

Photo 27 – Highly fractured rock outcrop extending through planned embankment area

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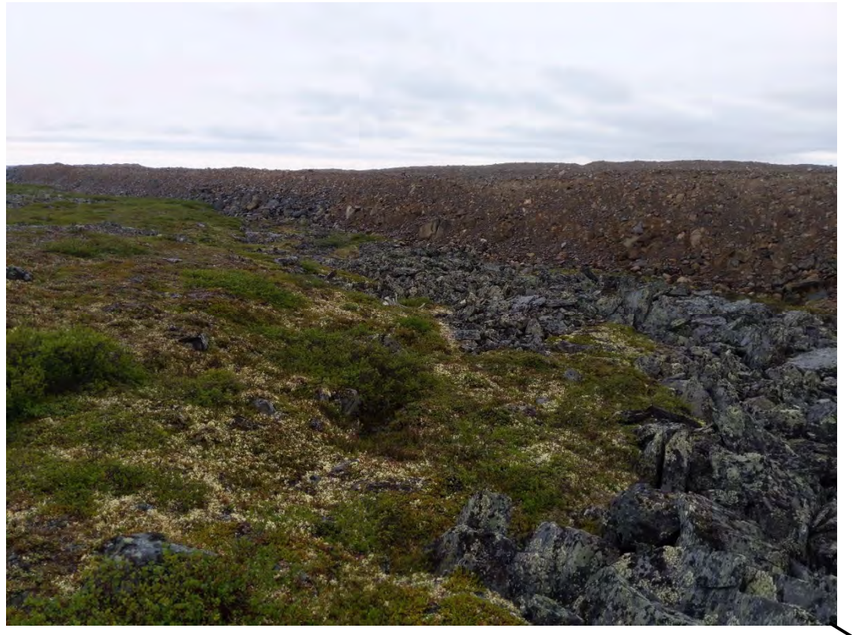

Photo 28

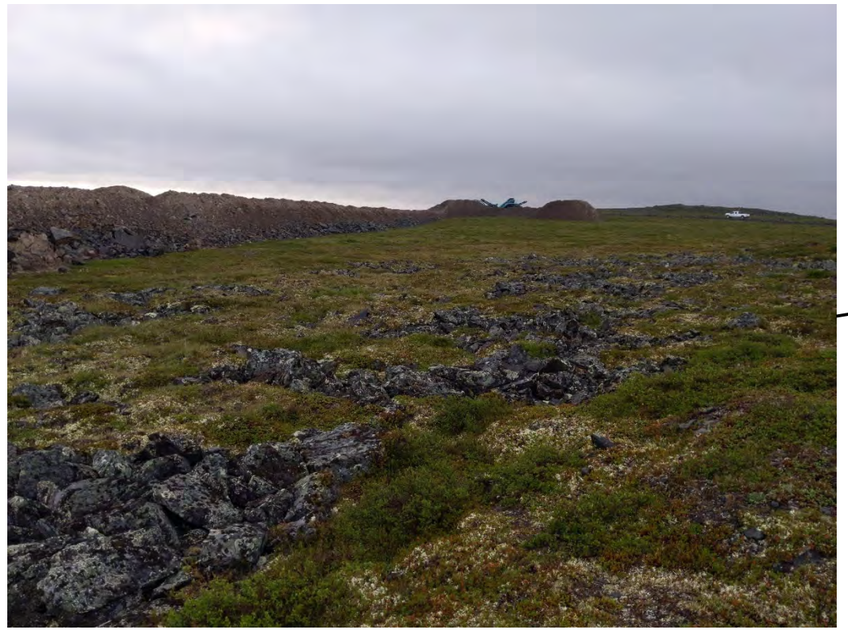

Photo 29

Photo 30

Photo 31

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Note: At the time of the summer SRK inspection there were no tanks installed on site at the plant site pad. This photo shows an overview of the site development activities at the plant site pad area at the time of the summer 2021 inspection. This location was in a state of active development

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Site Development Activist at the Plant Pad / Site
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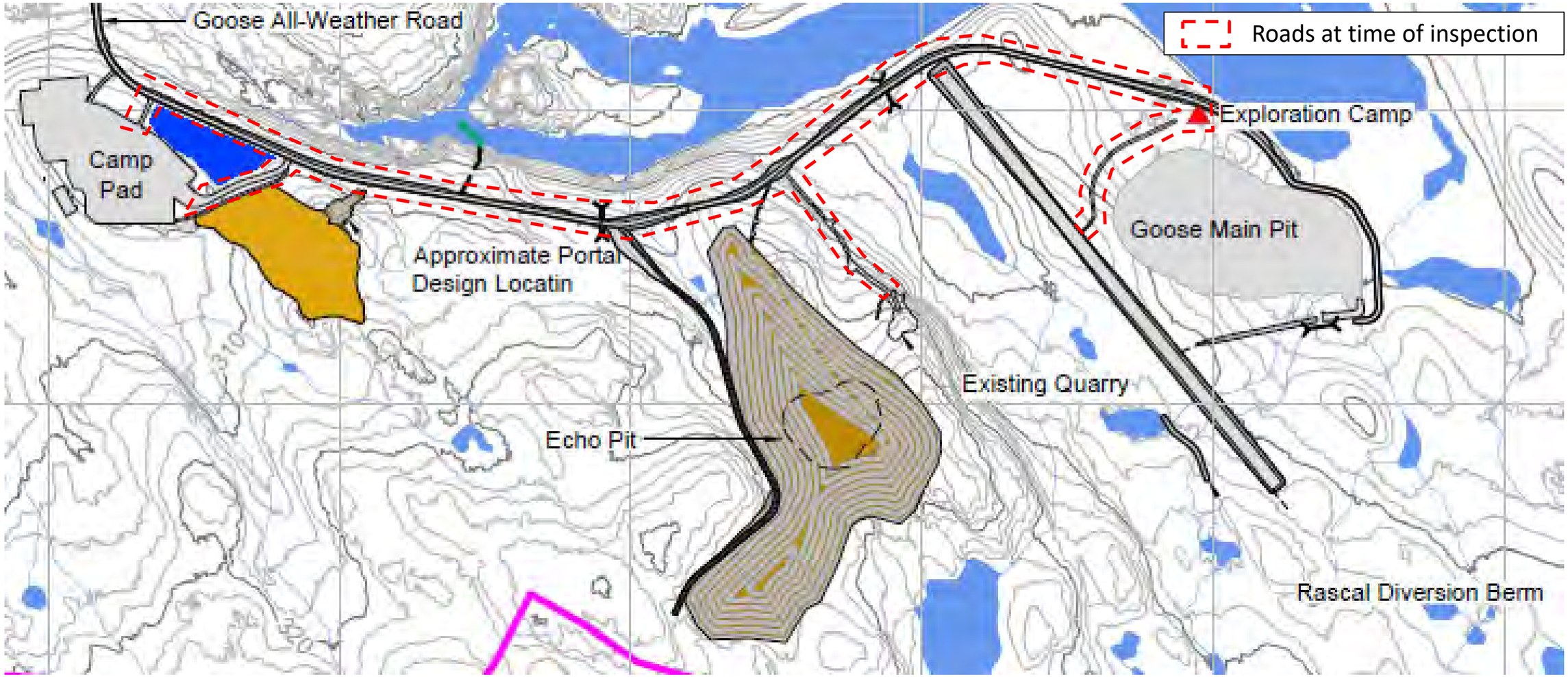

srk consulting	Sabina GOLD & SILVER CORP	2021 Back River Geotechnical Inspection
		Existing Roads During Inspection
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