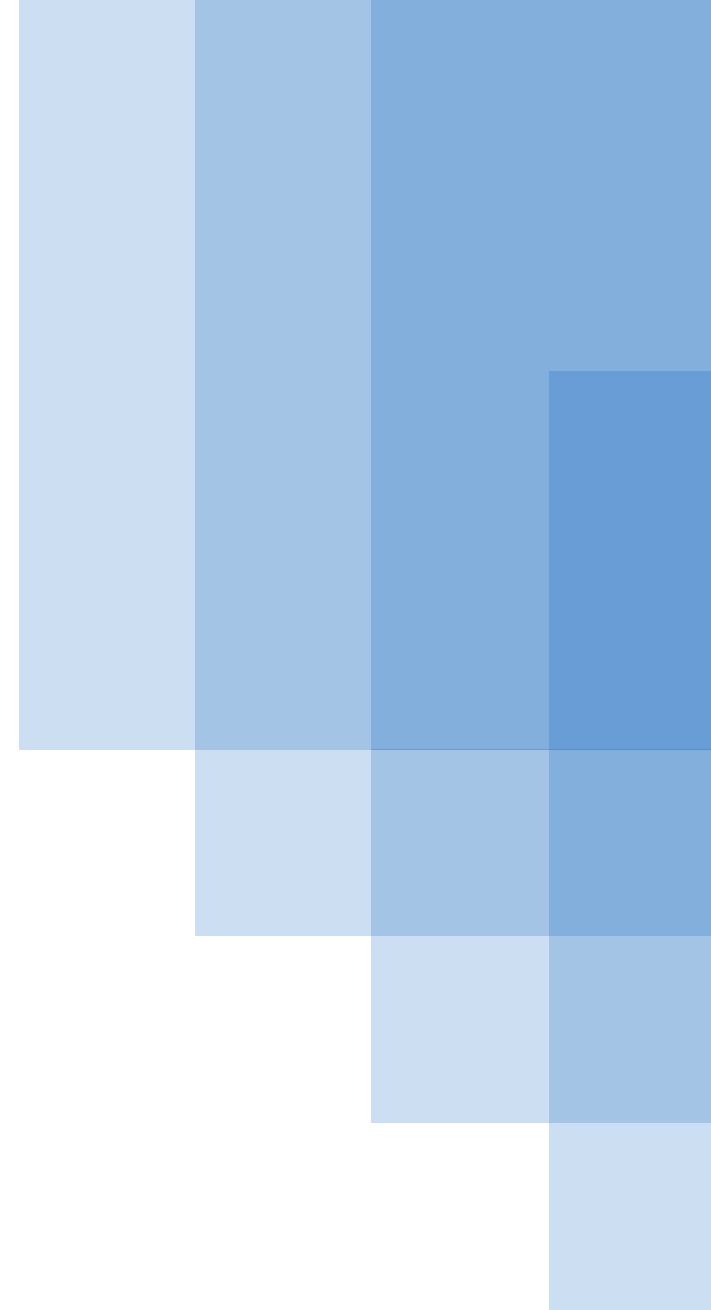




# Dufferin Aggregates Paris Pit CAP Meeting

November 26, 2019



# Agenda

- Welcome and Introductions
- Review & Approval of Minutes from previous meeting
- Review of Questions Tracker
- Operations Update
- Membership Update
- Next Meeting

# Questions Tracker

**Question:** *Why there is a variance in surface water sampling and groundwater sampling related to Aluminum and metals?*

- Variance in metal concentrations is typical of groundwater found in glacial deposits (poorly sorted sand and gravel deposits with variable amounts of fine grained sediment) and surface water bodies.
- Aluminum is the 3<sup>rd</sup> most abundant element in the earth's crust, commonly found in silicate minerals such as feldspars. The source of Aluminum in glacial deposits is from weathering in feldspar minerals.
- Aluminum is commonly found naturally in groundwater and surface water and is not a result of aggregate extraction or aggregate washing.
- Graphs of Aluminum and other selected metals (Arsenic, Lead, Nickel) were developed to show concentrations versus time, demonstrating there are no increasing trends in Aluminum and other metal concentrations in groundwater and surface water.

# Operations Update

# Operations Update

## ■ Employees

- 16 hourly, 4 salary
- Hiring in 2019 – 5 new employees
- Hiring in 2020 – Expecting to hire 2 additional employees
- Two shifts – Production & Maintenance

## ■ Review of samples:

- 6.7mm Clear (Chip)
- Concrete/Asphalt Sand
- 19mm Concrete Stone
- Raw feed/bank material
- 13.2 mm Rounds
- HL3
- Silt Sediment

# Operations Update

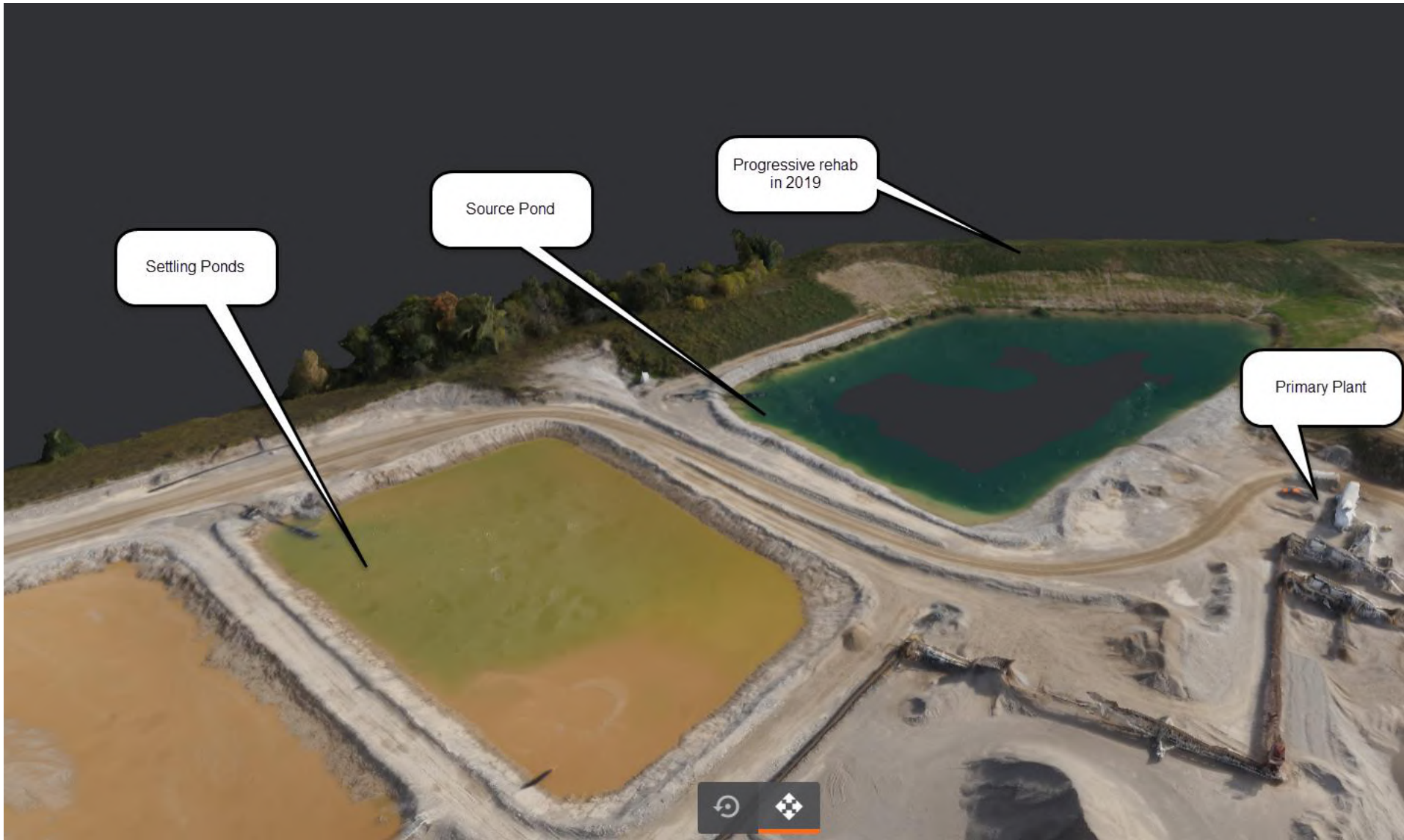
- Operations from June 2019 to November 2019 have included:
  - Shipping to customers
  - Processing of washed products (Mining west boundary)
  - Rehabilitation of side slopes (Boundary)
  - Plant Maintenance
- Operations plan for remaining of 2019:
  - Shipping to customers
  - Main production shut down
  - Rehabilitation – side slopes and floors
  - Ongoing maintenance activities

## Operations Update

- Stripping northern section to prepare area for extraction
- Progressive rehabilitation of southwest boundary
- Continue developing settling pond cells
- Rehabilitation around source pond









# Source Pond

- 2017: Source pond extracted
- 2018: Soil placed and cattails planted around pond perimeter
- 2019: Berm/slope earthworks and seeding completed



## MECP Inspection

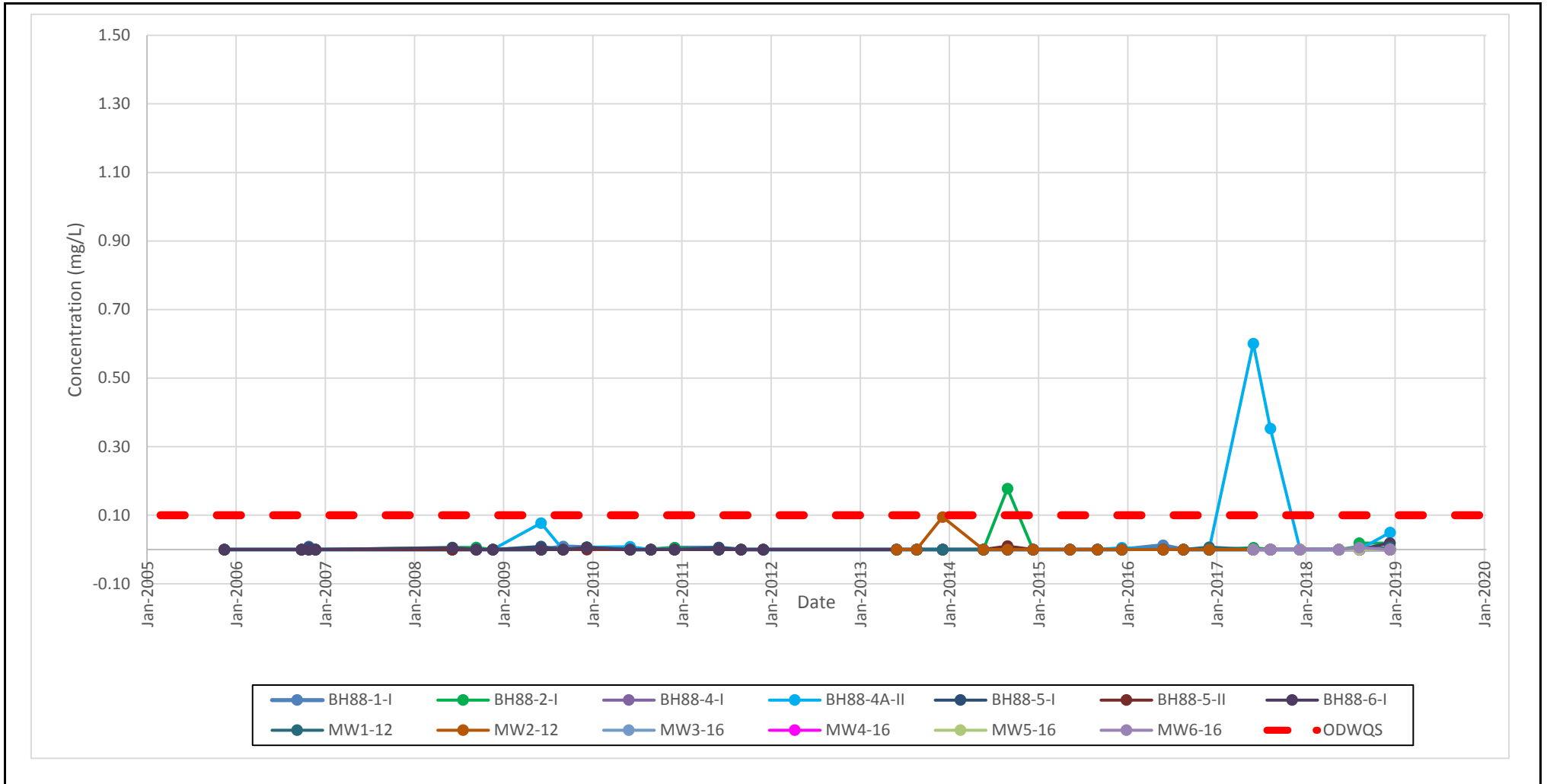
- Provincial Officer completed an inspection of the site's ECA (ISW) on November 20, 2019.
- He noted that it is typical to follow up with a site inspection for newly granted ECA's within the first couple years of operation.
- Inspection consisted of a review of documentation required by the ECA, as well as a site tour
- No action items identified and a full report is to be compiled within the next couple weeks, findings to be discussed at the next CAP meeting.

# Closing

- CAP Membership Review
  - Two members no longer wish to participate
  - Four members did not respond
  - Eight members confirmed participation
- 2020 meeting schedule
  - For discussion
- Topic suggestions



**Thank you**



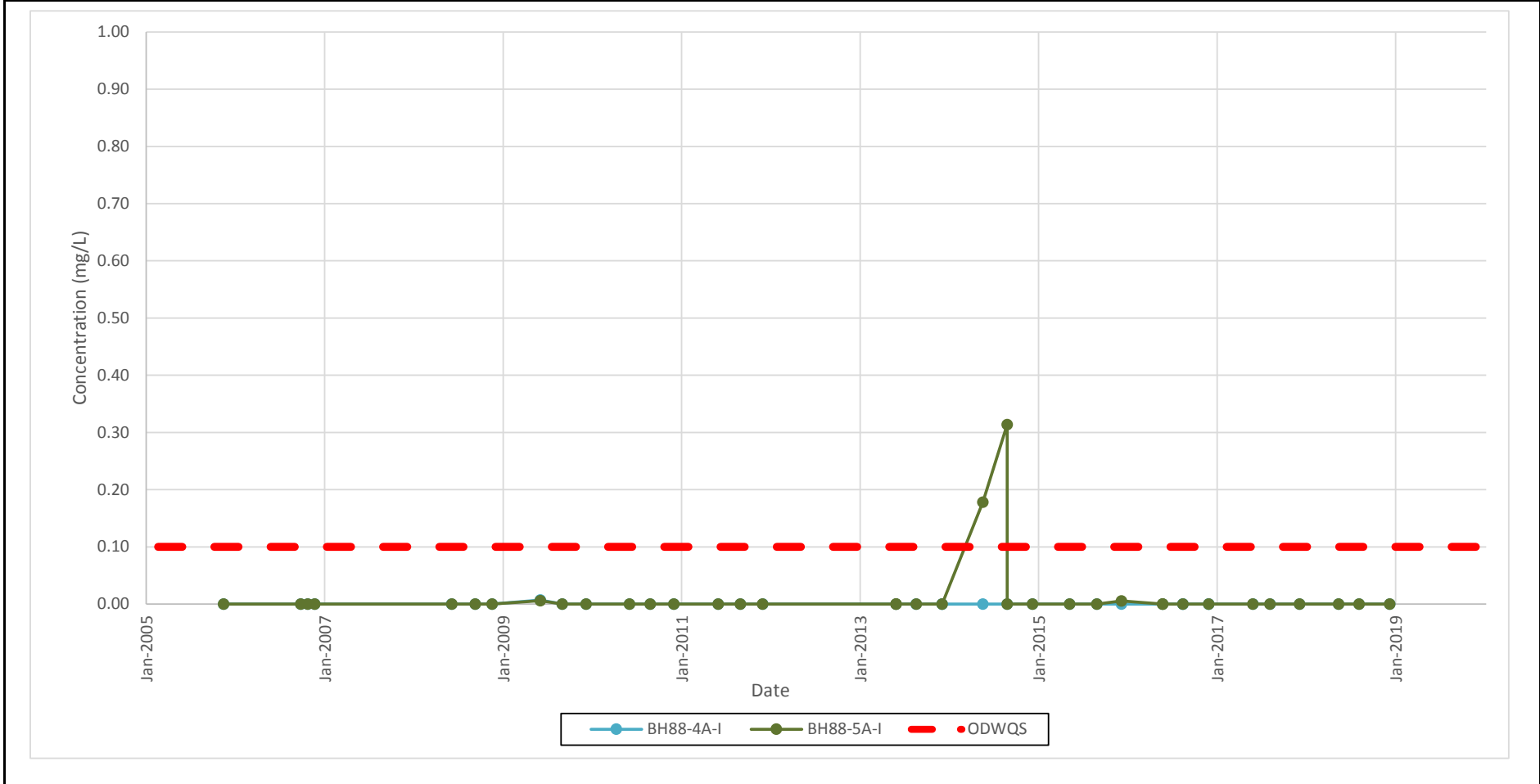
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13-Aug-19

Groundwater (Overburden) Aluminum Concentration vs. Time Graph

FIGURE NO. 1a



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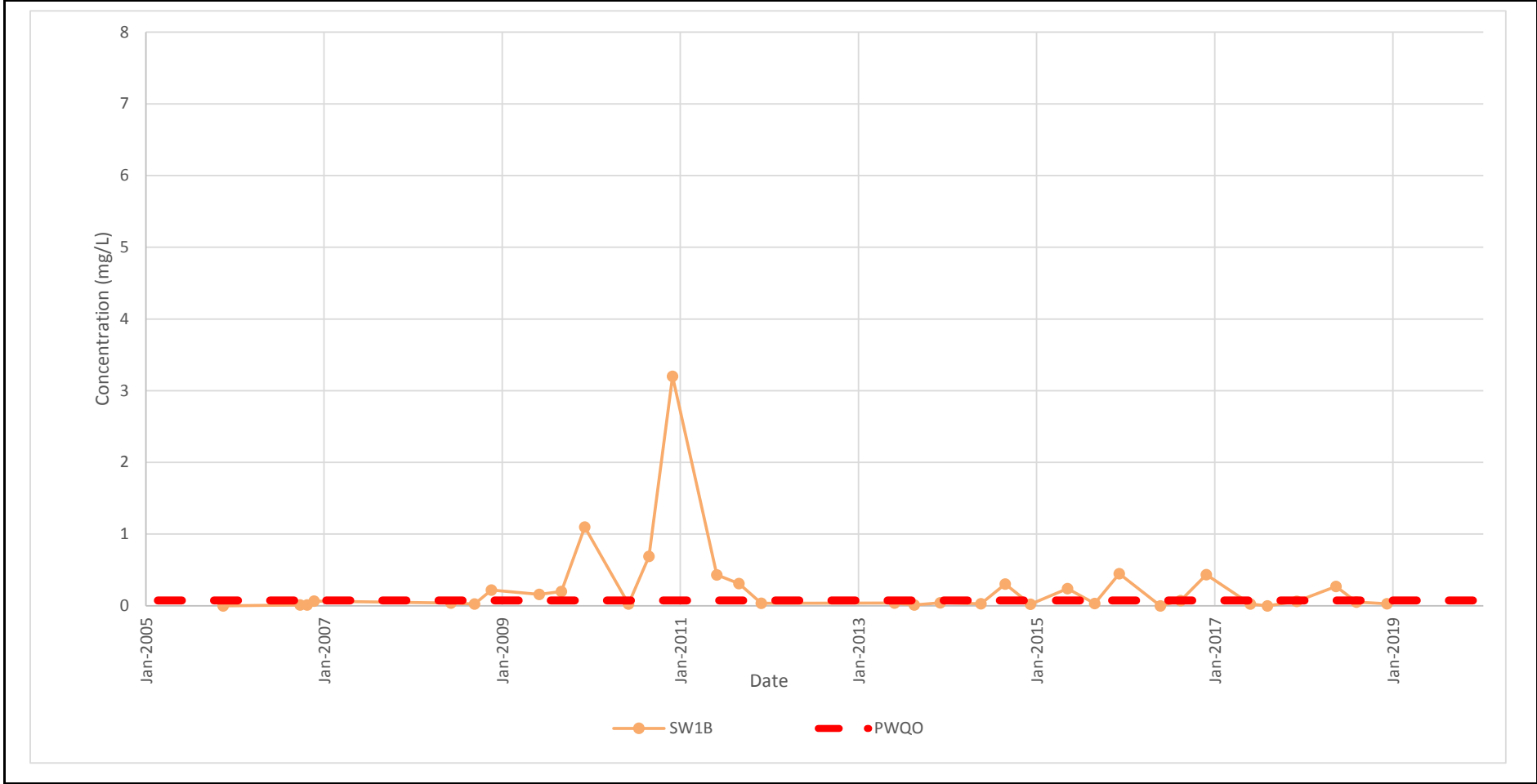
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Groundwater (Bedrock) Aluminum Concentration vs. Time Graph

FIGURE NO. 1b





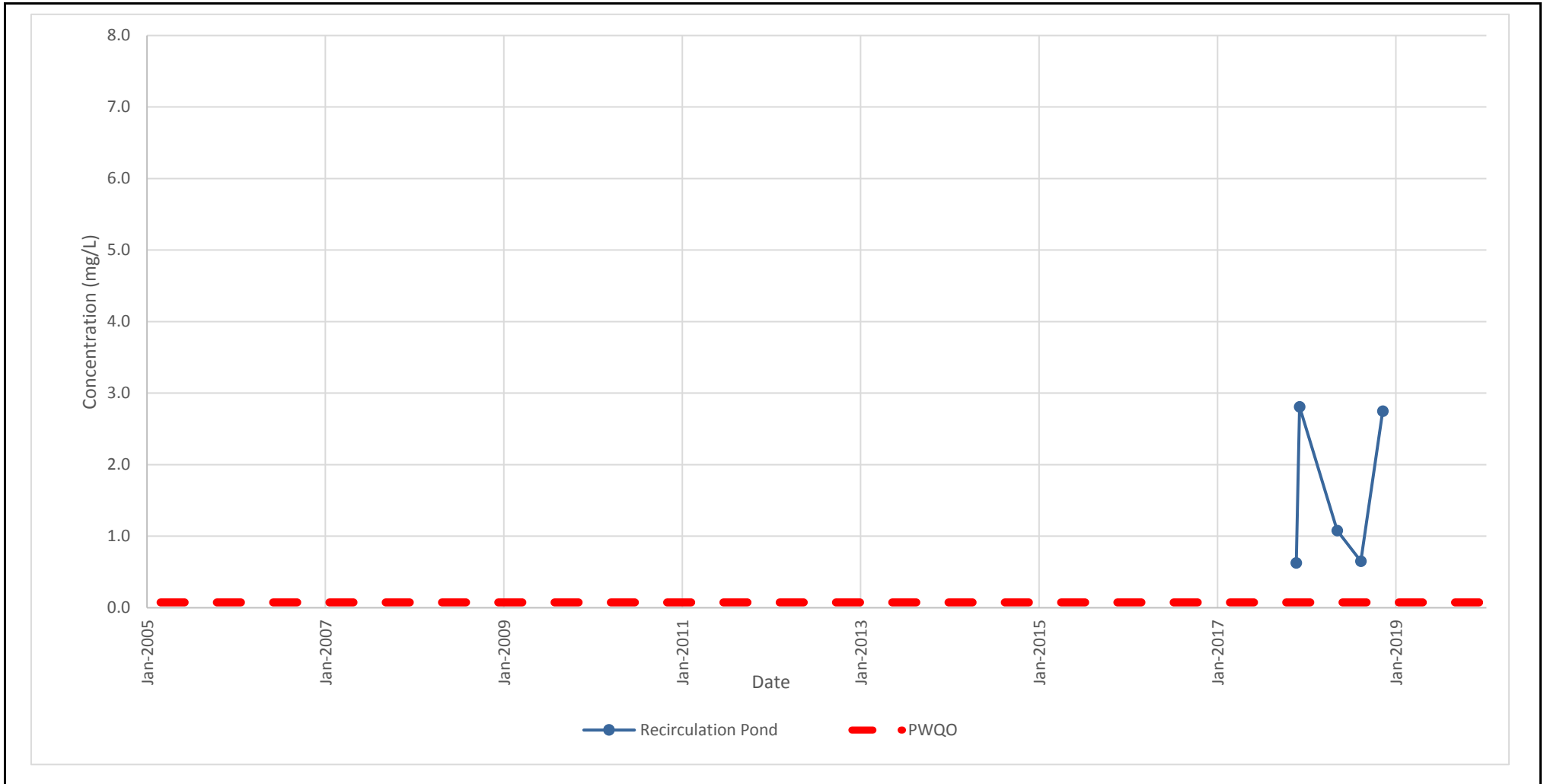
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Surface Water Aluminum Concentration vs. Time Graph

FIGURE NO. 1c



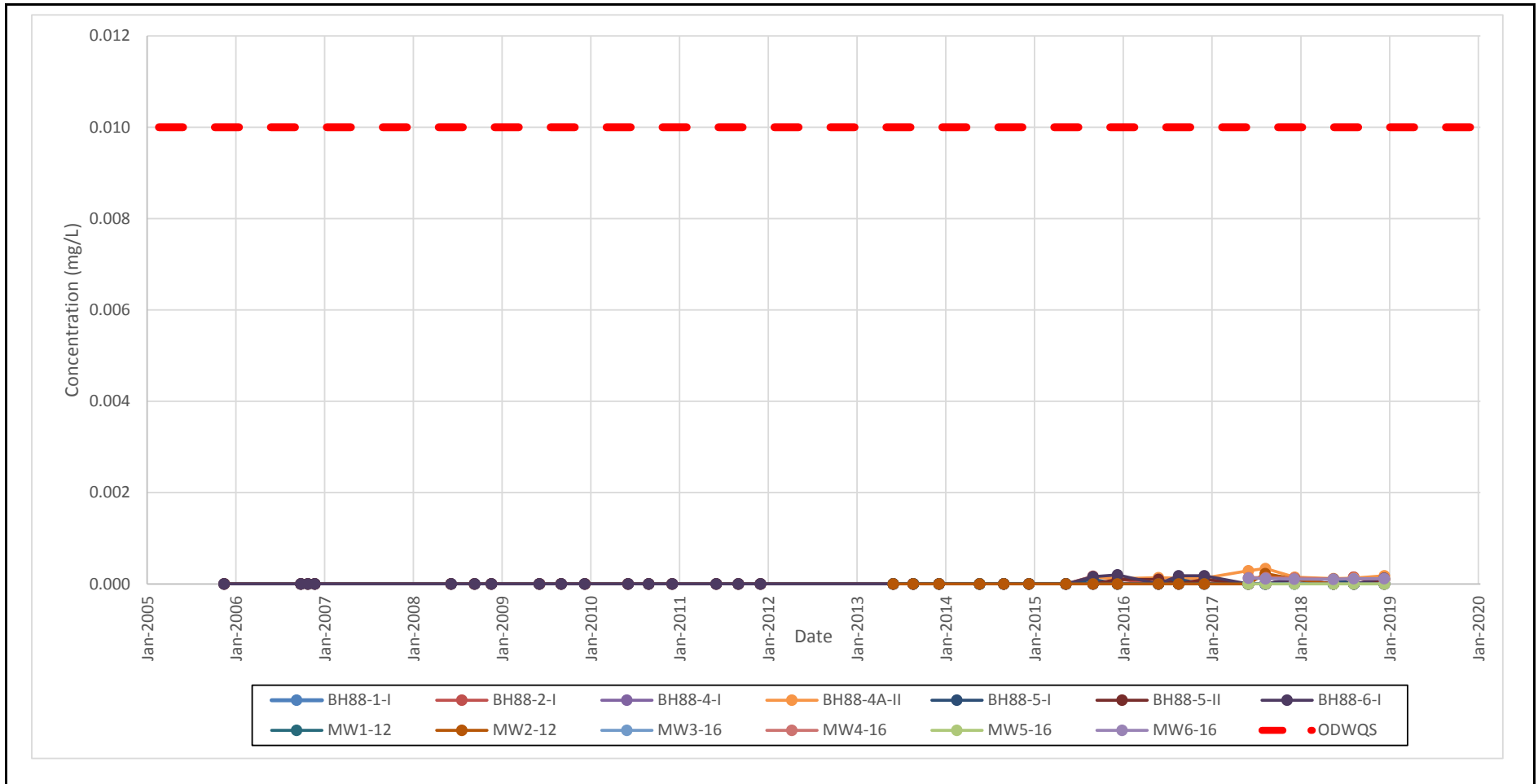
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Surface Water (Recirculation Pond) Aluminum Concentration vs. Time Graph

FIGURE NO. 1d



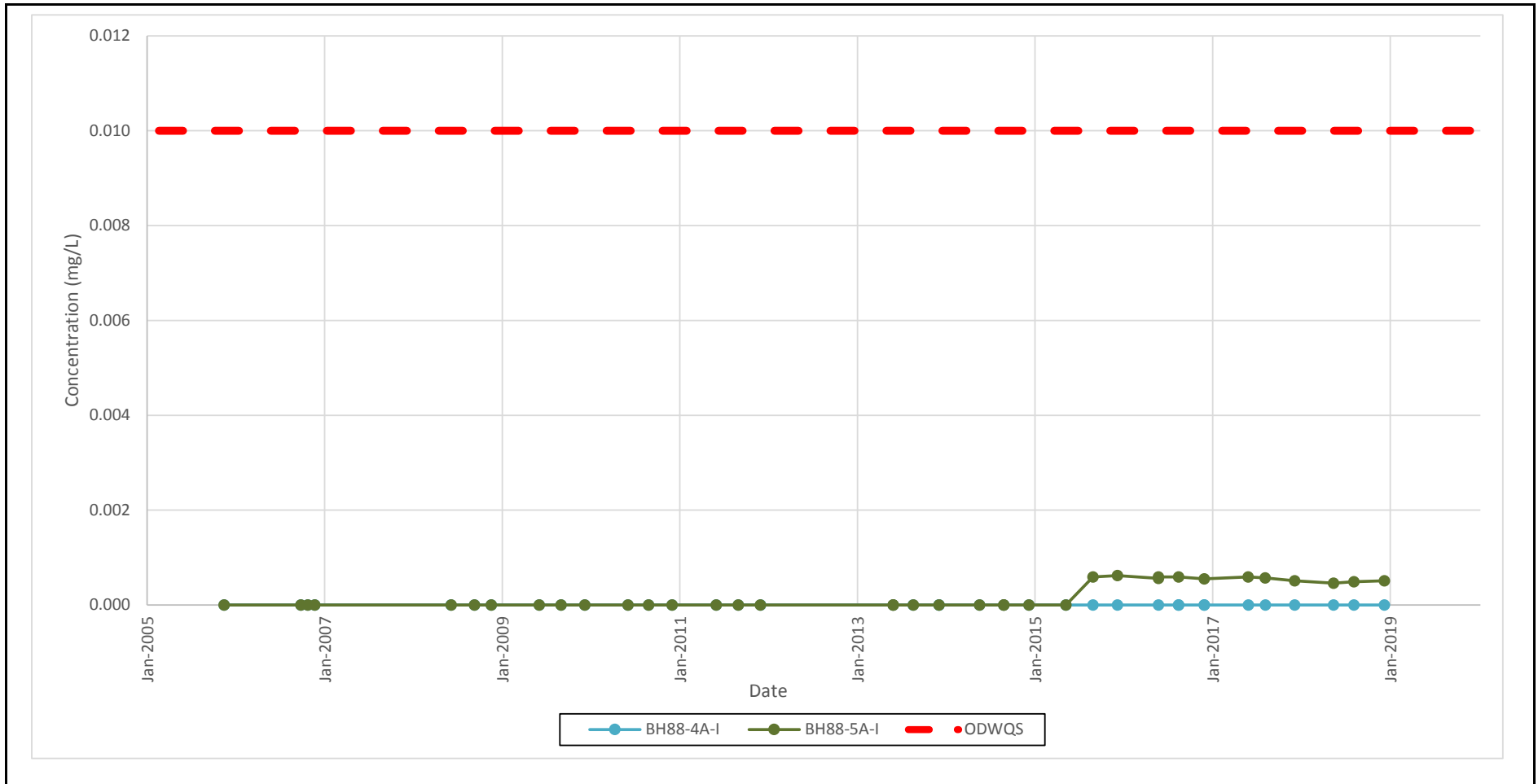
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Groundwater (Overburden) Arsenic Concentration vs. Time Graph

FIGURE NO. 2a



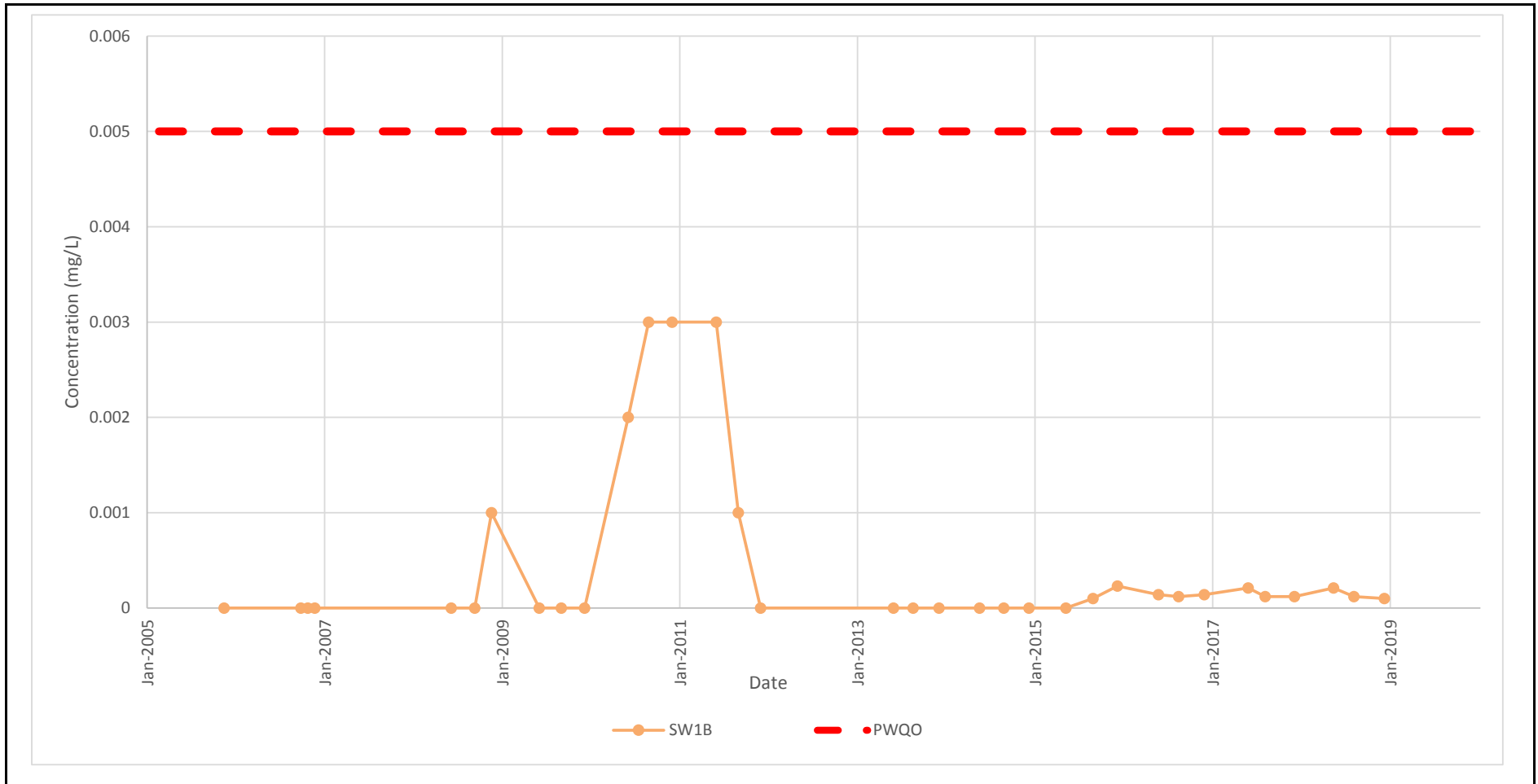
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Groundwater (Bedrock) Arsenic Concentration vs. Time Graph

FIGURE NO. 2b



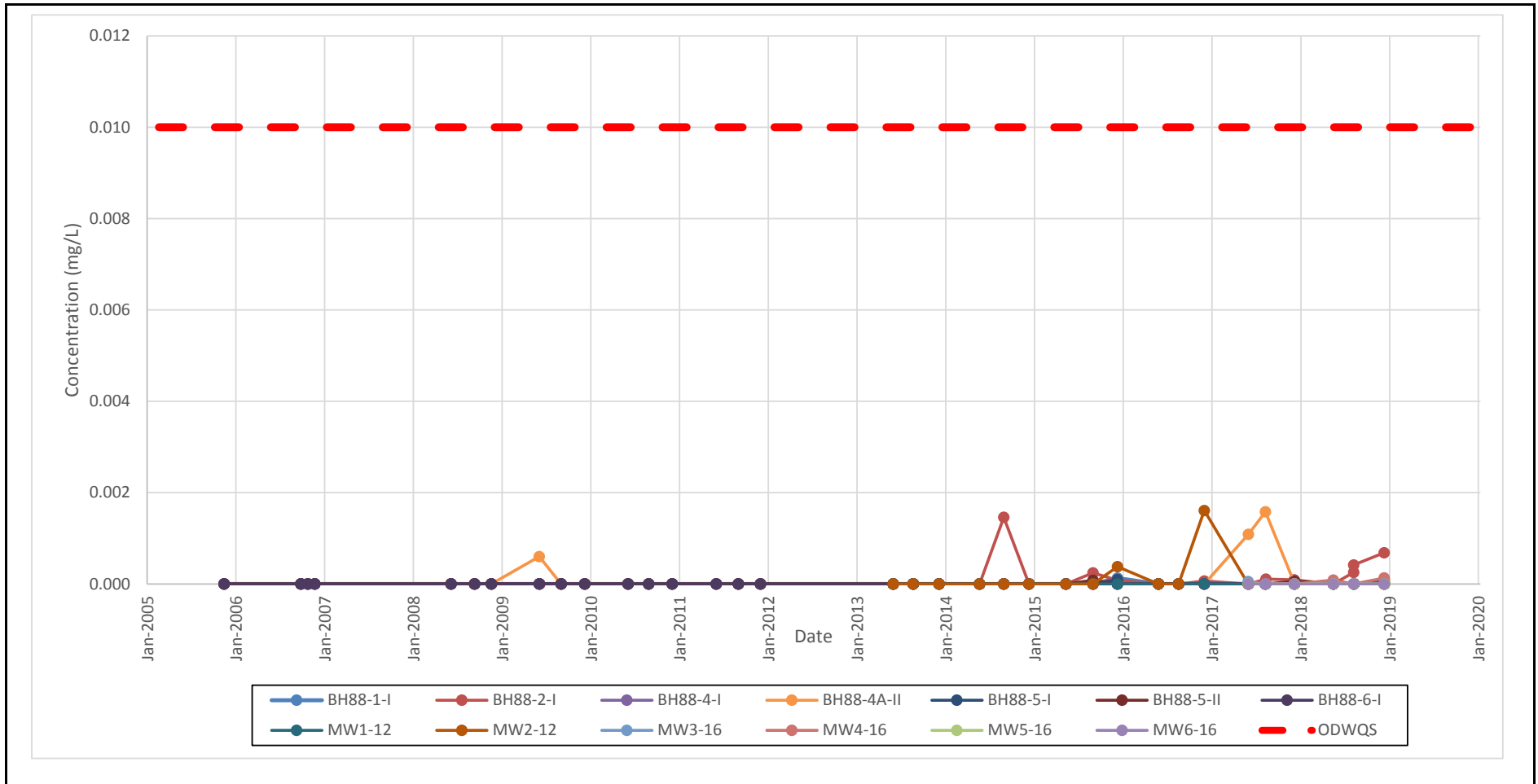
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Surface Water Arsenic Concentration vs. Time Graph

FIGURE NO. 2c



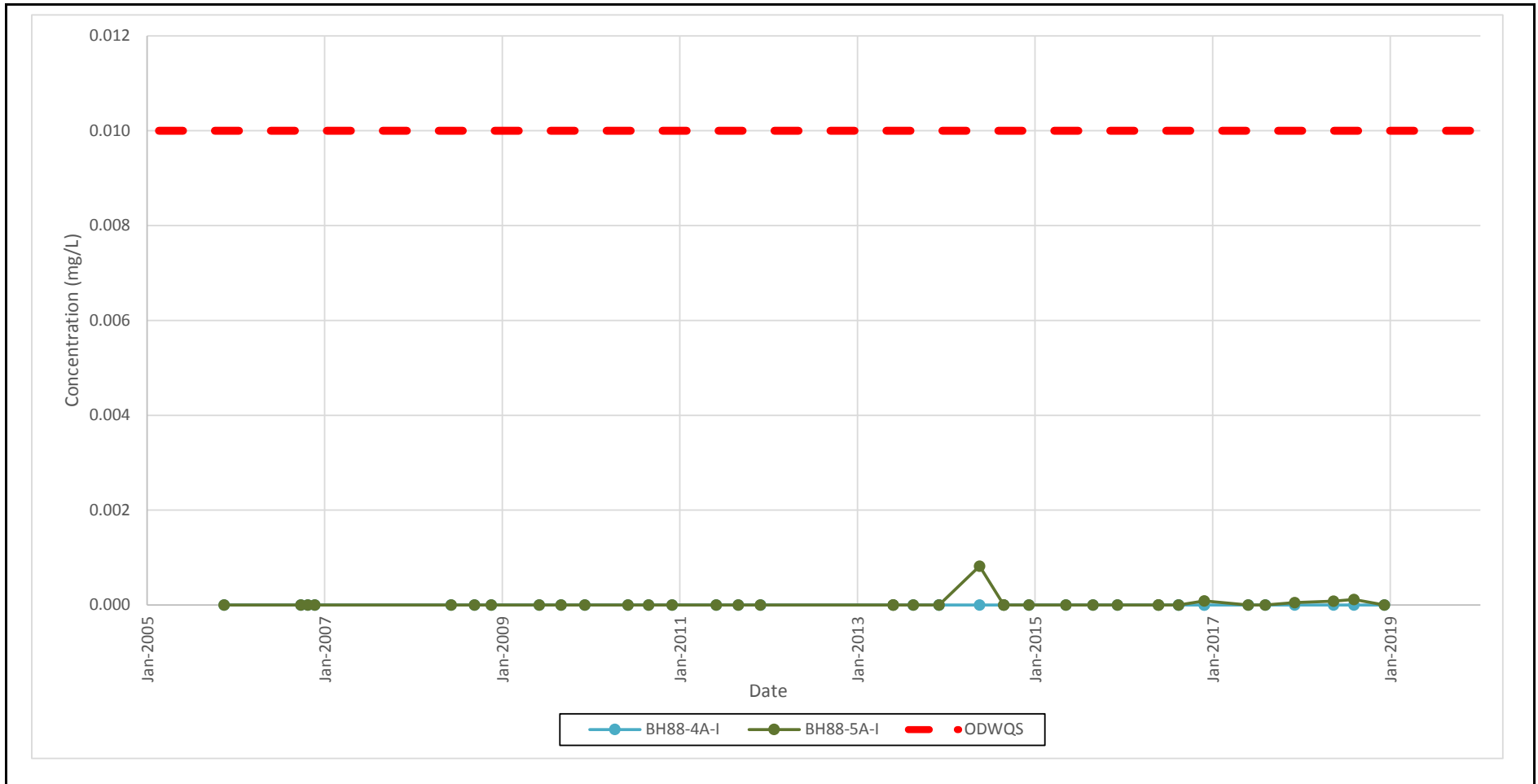
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Groundwater (Overburden) Lead Concentration vs. Time Graph

FIGURE NO. 3a



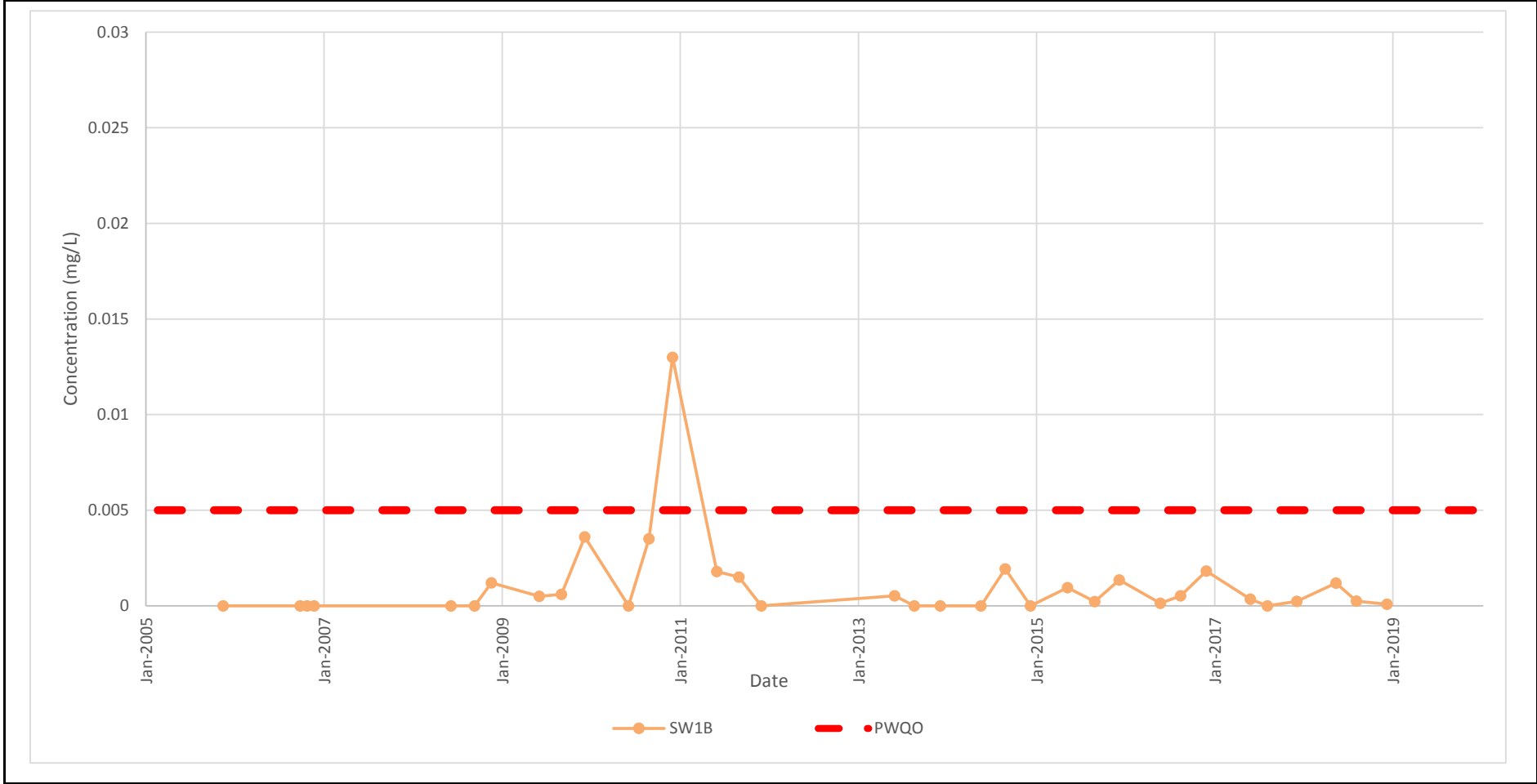
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Groundwater (Bedrock) Lead Concentration vs. Time Graph

FIGURE NO. 3b



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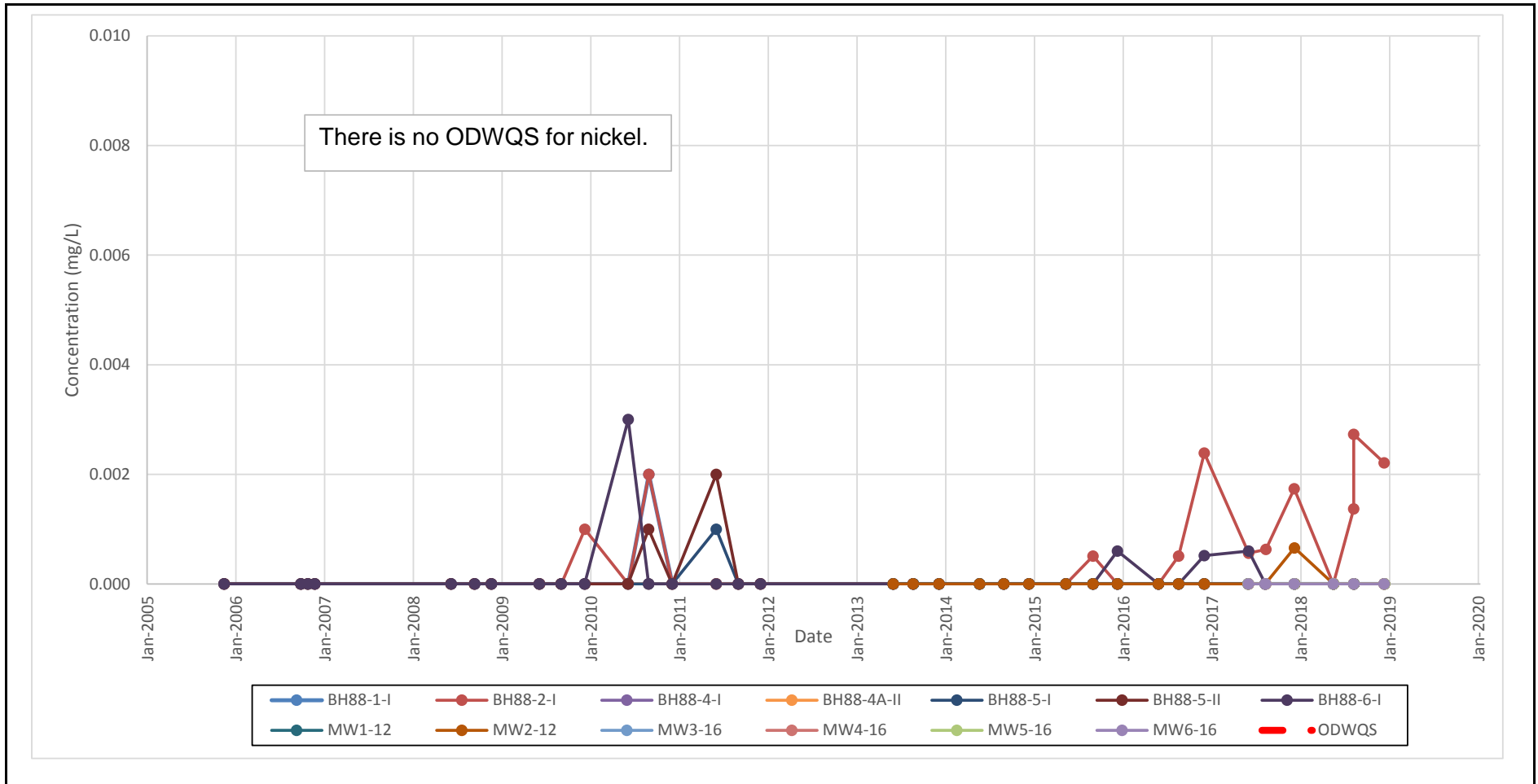
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Surface Water Lead Concentration vs. Time Graph

FIGURE NO. 3c





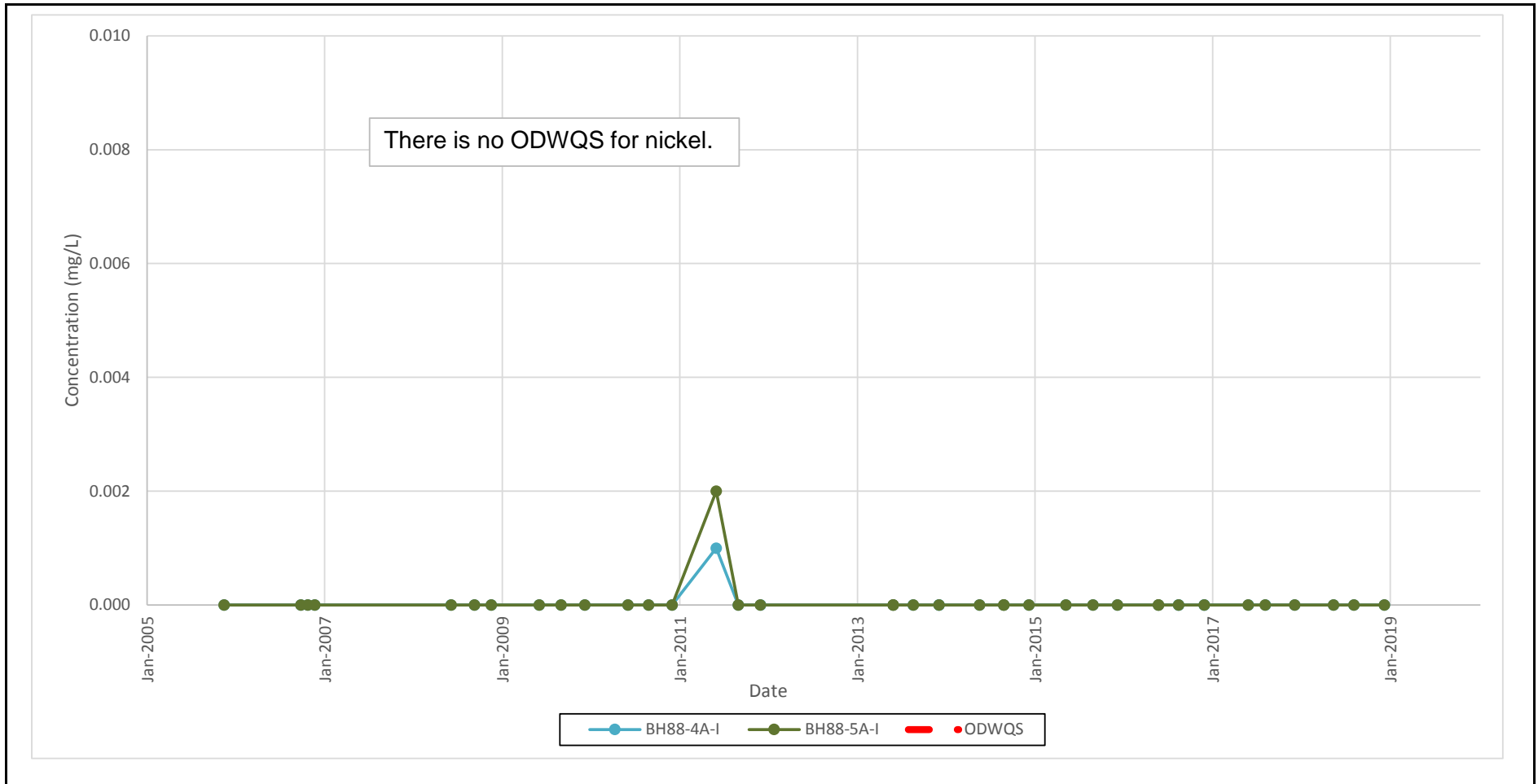
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Groundwater (Overburden) Nickel Concentration vs. Time Graph

FIGURE NO. 4a



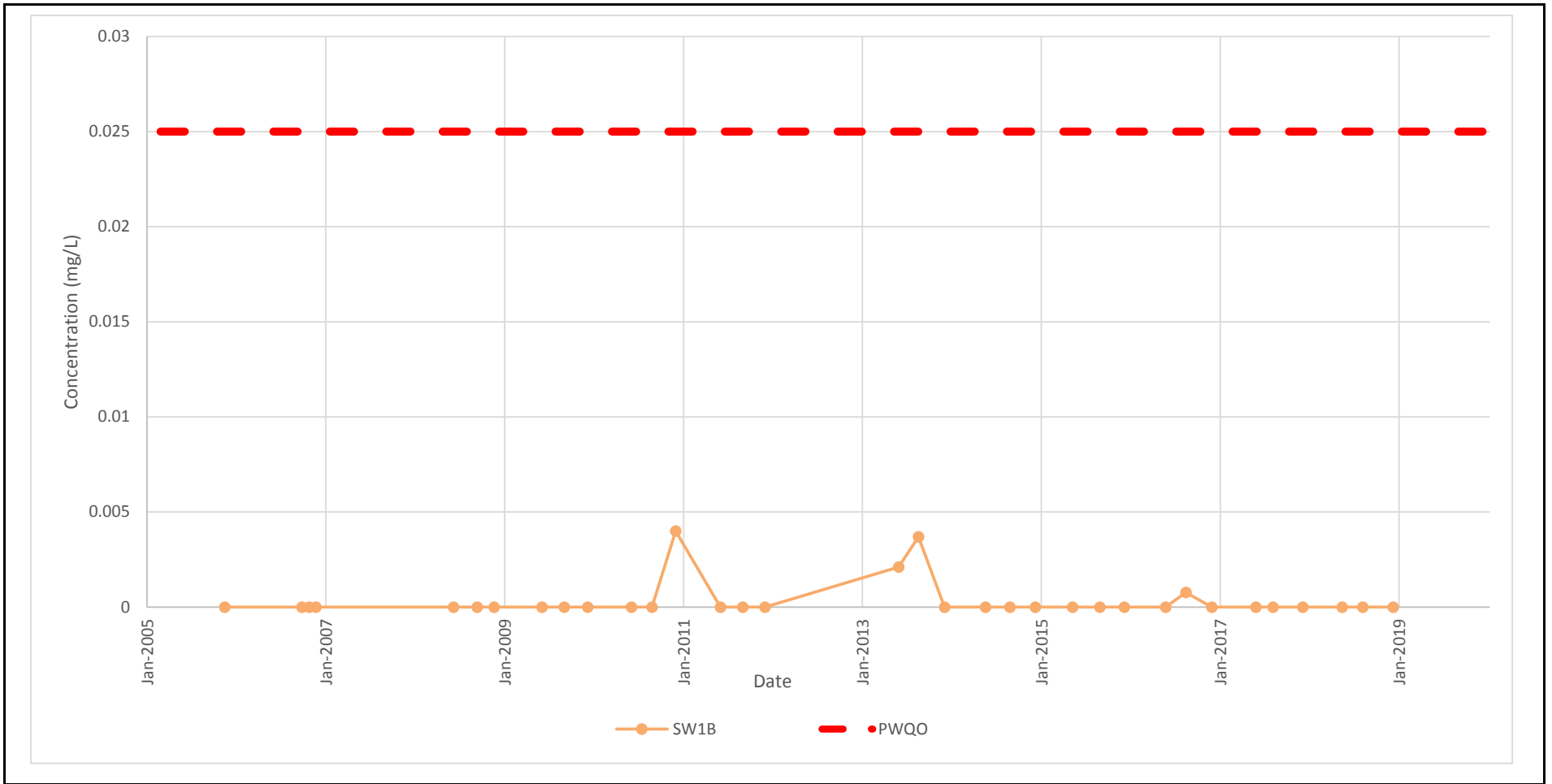
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Groundwater (Bedrock) Nickel Concentration vs. Time Graph

FIGURE NO. 4b



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Surface Water Nickel Concentration vs. Time Graph

FIGURE NO. 4c