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CITY OF IQALUIT

WATER QUALITY EMERGENCY

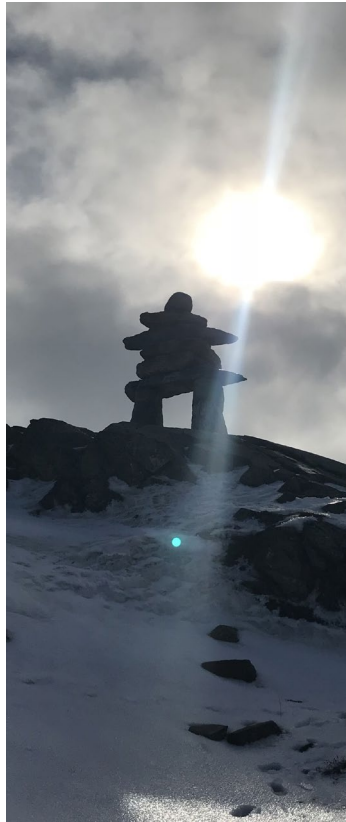
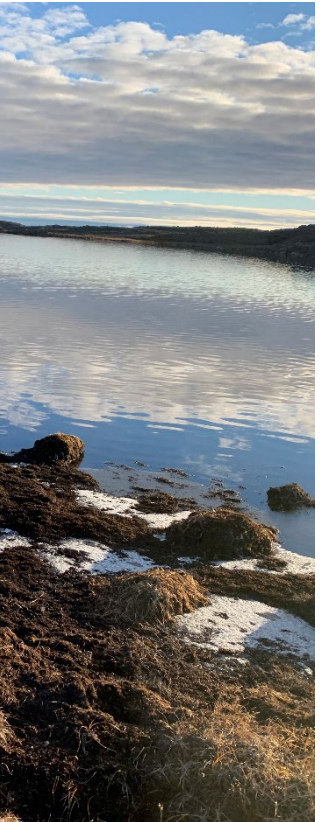
ᐅᐃ 5, 2022

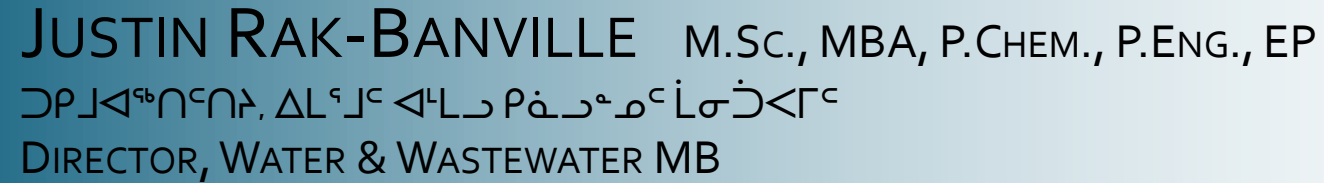
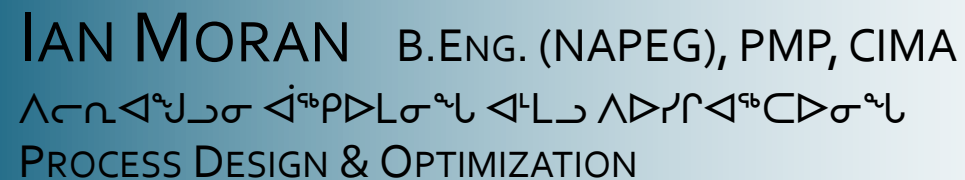
MAY 5TH, 2022

IAN MORAN B.ENG. (NAPEG), PMP, CIMA
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PROCESS DESIGN & OPTIMIZATION

DR. CHARLES GOSS PH.D., PMP, P.CHEM
ᐃᓴᑦ ᐱᐅᑎᓯᓂᓴᓂᓄᑦ ᐱᓕᓴᓴᓴᓴᓴᓴᓴ
WATER QUALITY SPECIALIST

JUSTIN RAK-BANVILLE M.Sc., MBA, P.CHEM., P.ENG., EP
ᐅᓯᓴᐸᑦᑎᑦᑎᐱ, ᐃᓴᑦᓴᑦ ᐸᐸᓴᓂᓄᑦᓴᓂᐅᐸᑦ
DIRECTOR, WATER & WASTEWATER MB



A portrait of a man with short dark hair and a beard, smiling and looking slightly to the right. He is wearing a blue button-down shirt. The background is a blurred indoor setting with warm lighting. The image is framed by a dark teal border.

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EARLY OCTOBER



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Fuel-like smell coming from taps



PETROLEUM HYDROCARBONS

[illegible]

ΔΓ^αΓ^β ς^β▷λγ ς^β◁▷λκ◁ζ^γ

Types	Drinking Water Screening Values
<u>F₁</u> Gasoline and Solvents	N/A
<u>F₂</u> Diesel and Kerosene	390 µg/L
<u>F₃</u> Lubricants and Oils	290 µg/L
<u>F₄</u> Heavy Oils	N/A



CALDA^ae^b ◀▶Cσ^aL



Waste Tank

▷▷ΛΛΓΓ ΔσΓΛ▷ΓΓ Γβ▷ΓΛΓσΓβ OCTOBER FIELD INVESTIGATION



ΛΔβ ΓΔΛΓΓ ΓΛΛ ΓΛΓσ Γβ▷ΓΛΓσΓβ



Lake Geraldine and Exterior Assessment

Γβ▷ΓΛΓσΓβ Γ▷ΓΛΓΓ Γβ▷ΓΛΛ▷ΓΓ ΔΓΛΓΛ▷Γσβ
ΛΡΛΛΛΓΓΓΓΓΓΓ ΓΡΓβΓσβ



Assessment of Known Potential Sources of Contamination

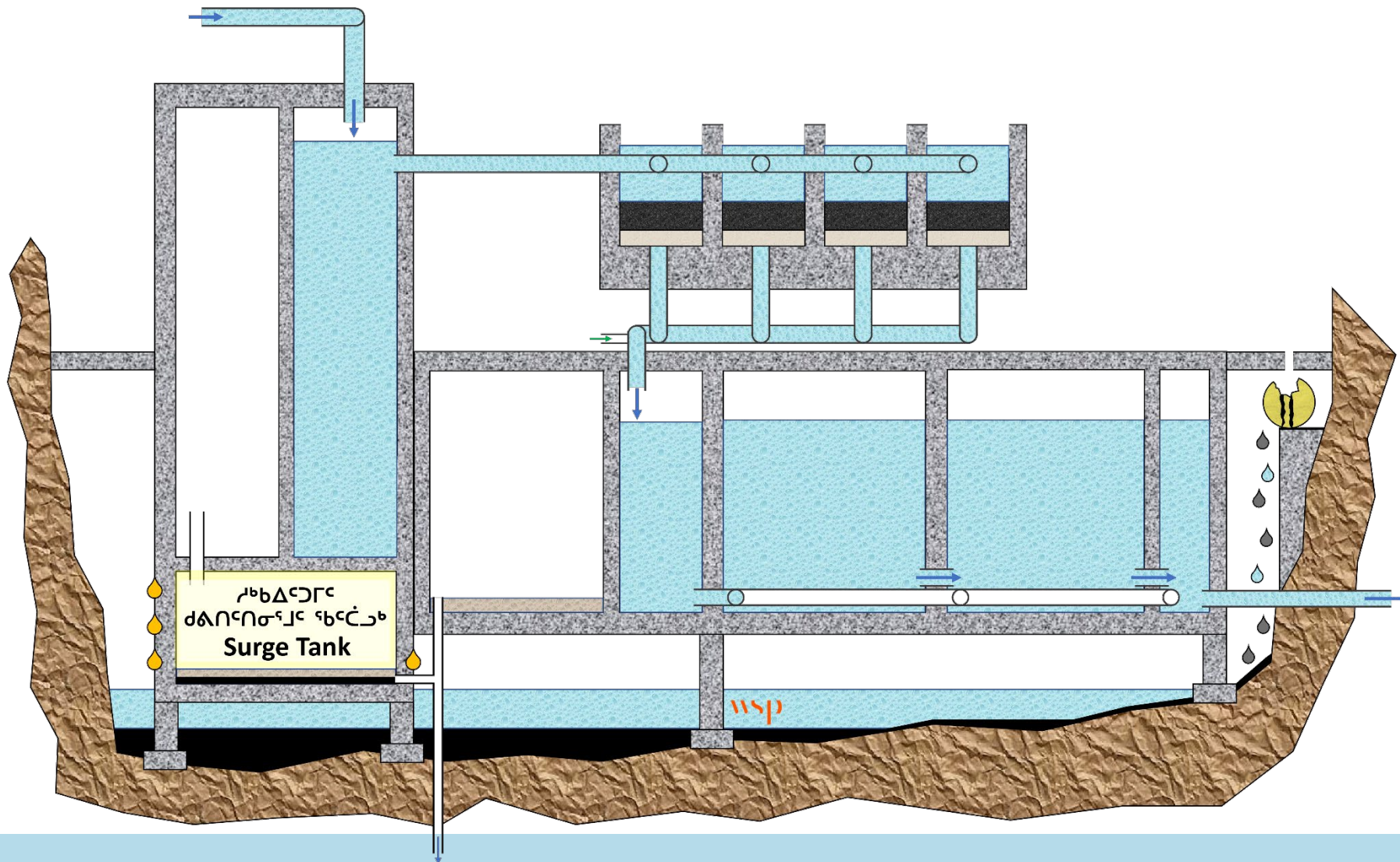
▷▷ΛηΓ^c Δσρλε▷ϚΓ^c ϑβ▷τλ^cσ^{ϑβ}

OCTOBER FIELD INVESTIGATION



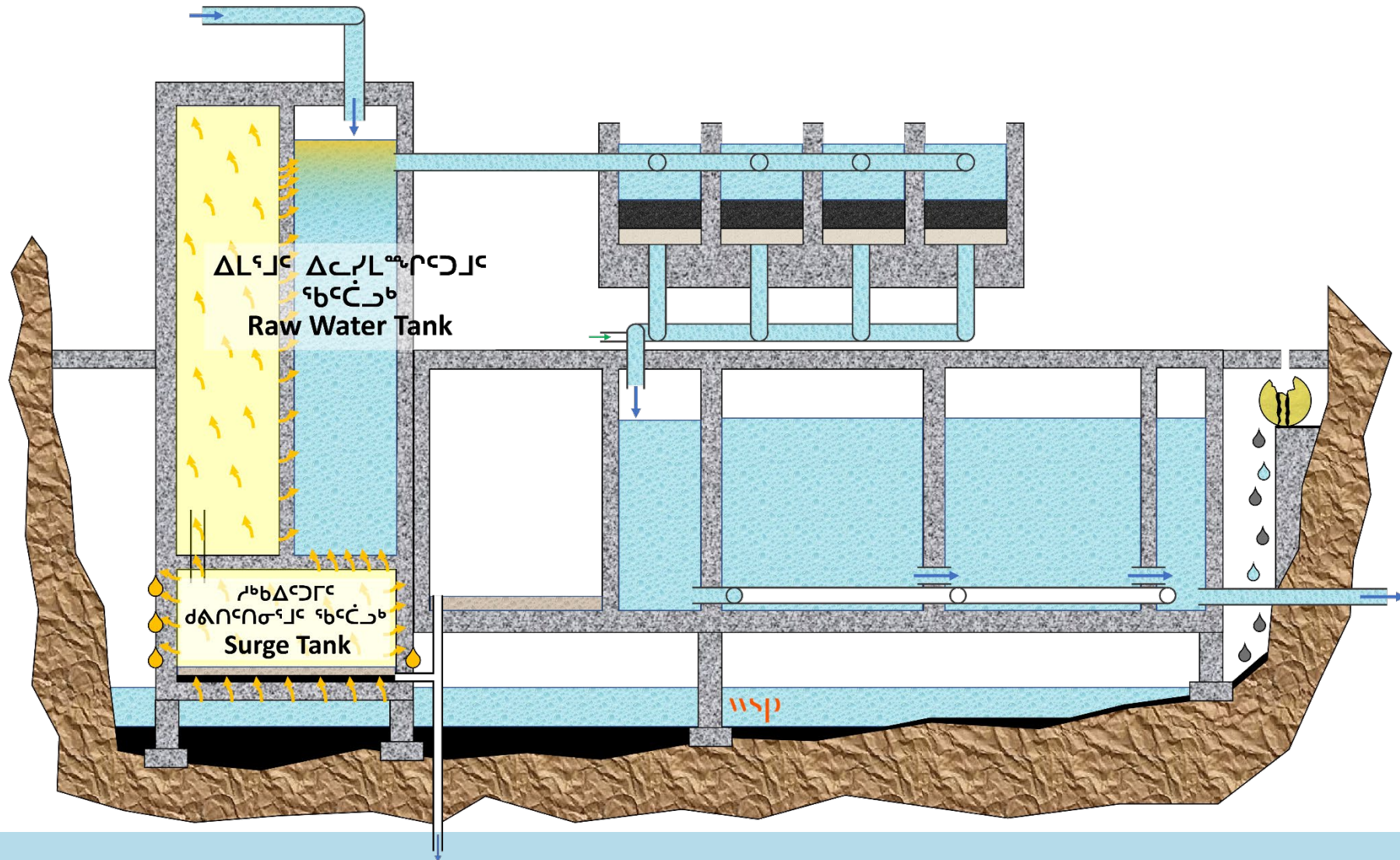
The Void

▷▷ΛηΓ^c Δσρλ▷ϚΓ^c ϑб▷λγ^ϑσ^{ϑб}
OCTOBER FIELD INVESTIGATION



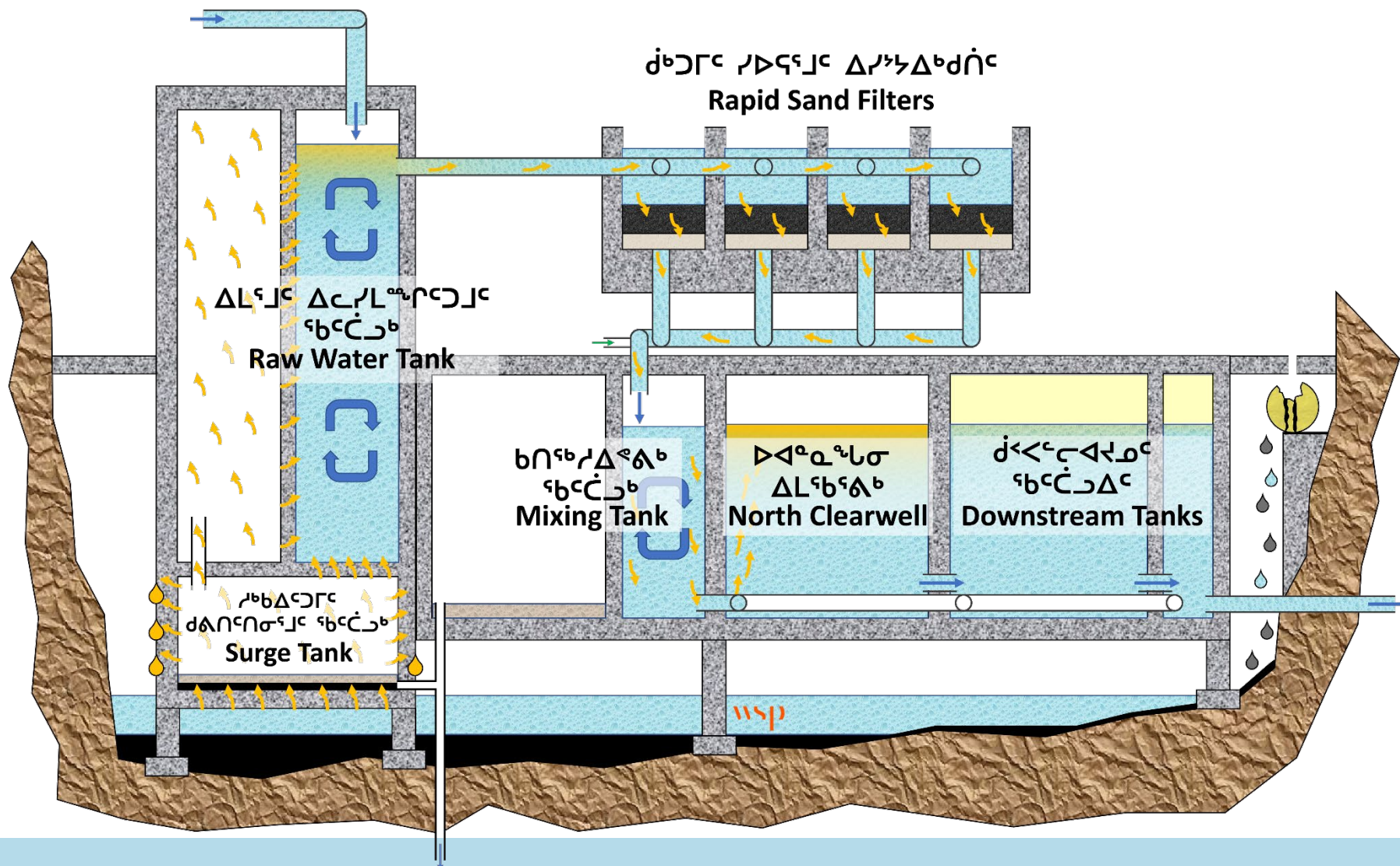
▷ ƧΛηΓᑦ ᐱᑭᑦ ᑭᑕᑦ ᐱᑭᑦ ᐃᑭᑦ OCTOBER CONTAMINATION PATHWAY

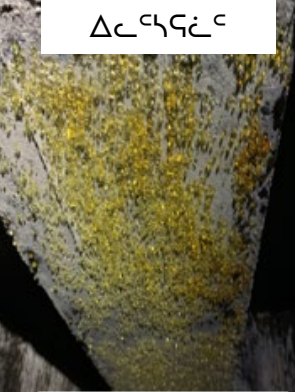
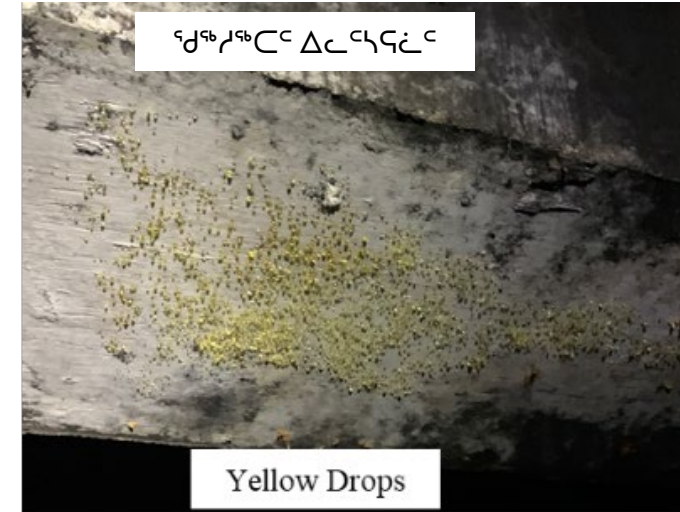
WSP



▷▷ΛΛΓΓϙ ϙϙϙ ϙϙϙ ϙϙϙ OCTOBER CONTAMINATION PATHWAY

WSP





Orange Drops



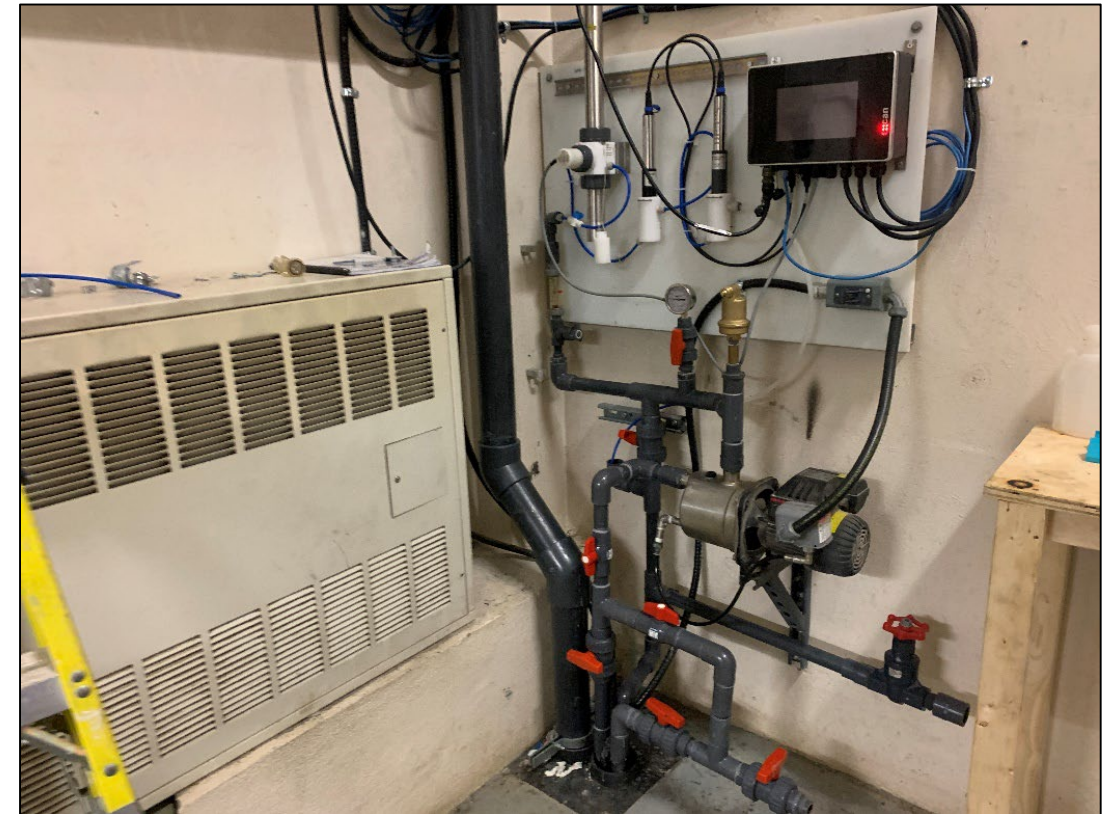


-
- Hydrocarbon Monitoring Systems Installed
- Historic Tank Removed
- Tanks Emptied and Cleaned
- Void Cleaned
- wsp

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Raw Water S::CAN

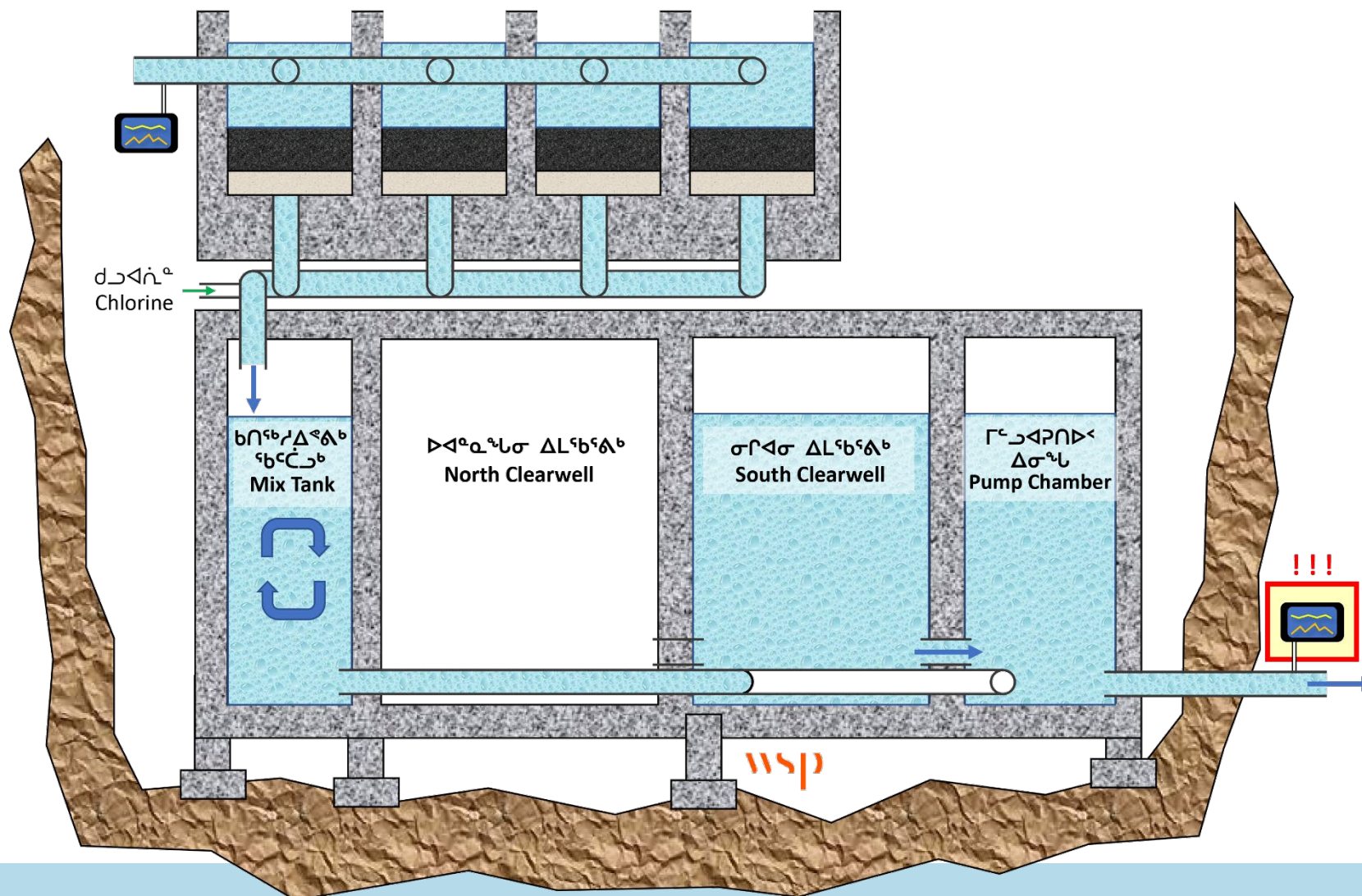


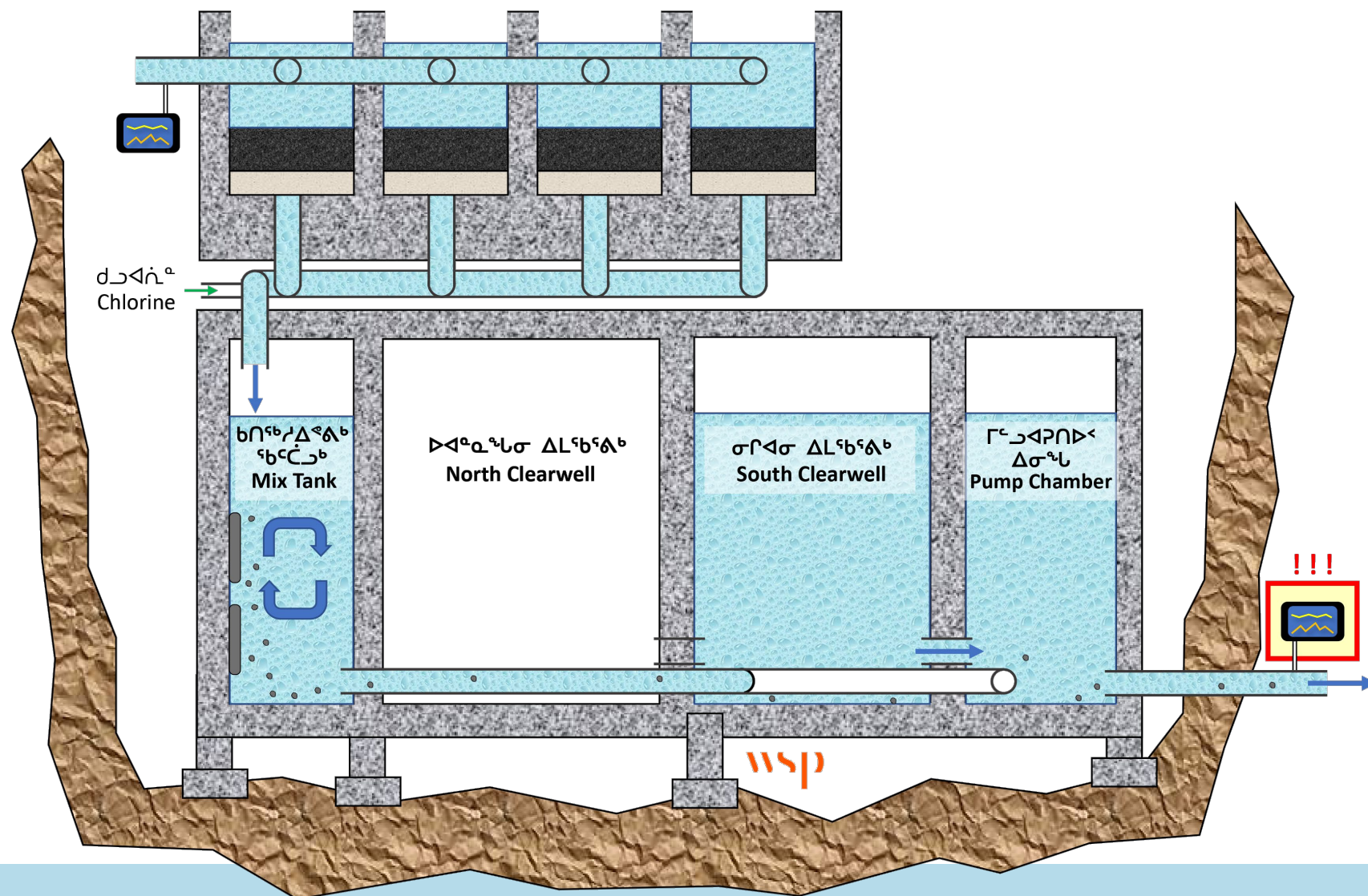
Treated Water S::CAN



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DECEMBER DETECTION





ԸՆԴՀԱՆՈՒՐ ԴՐՈՒՄ
 TAR-LIKE SUBSTANCE



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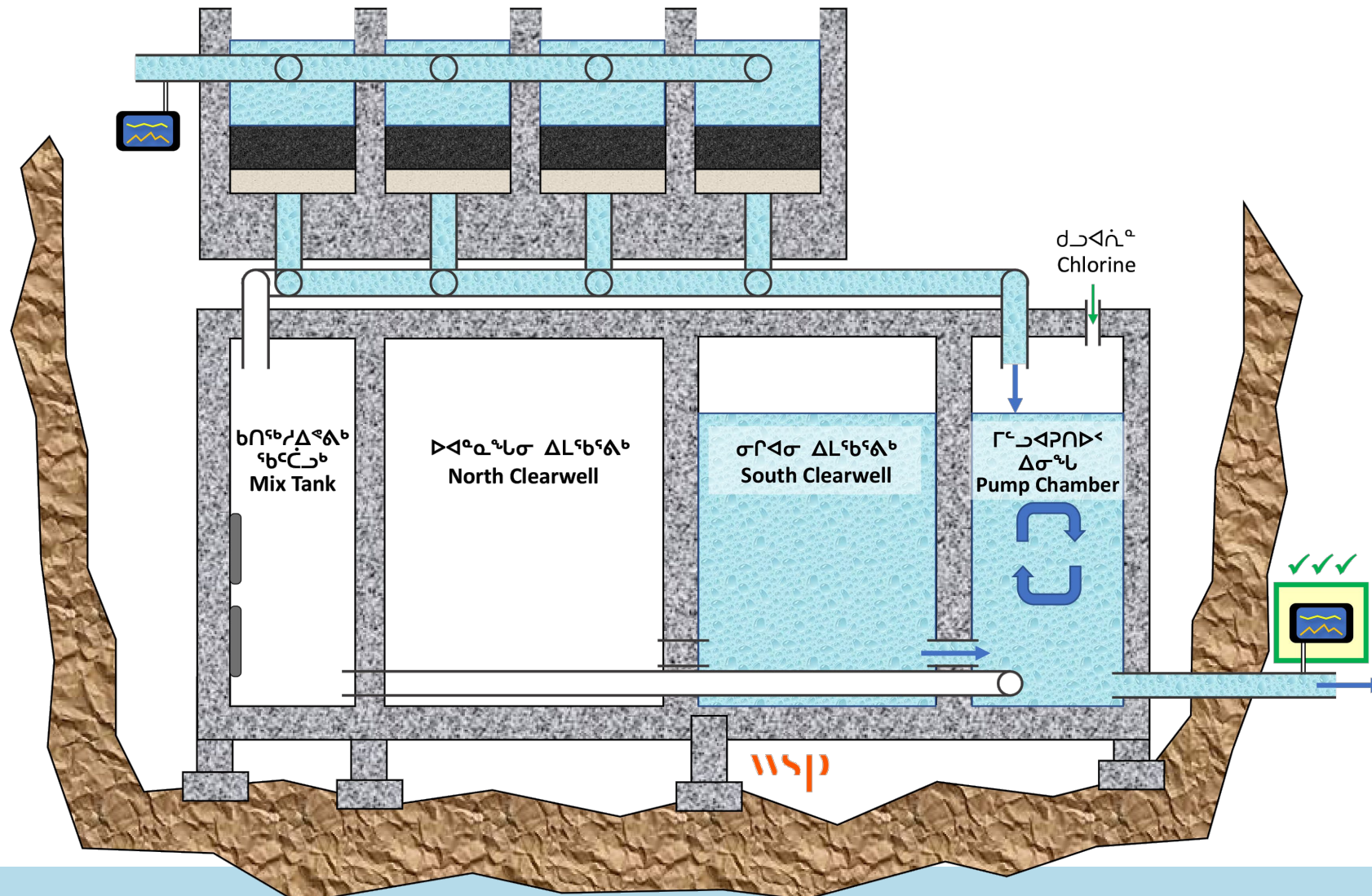


Close-up of black tar-like substance



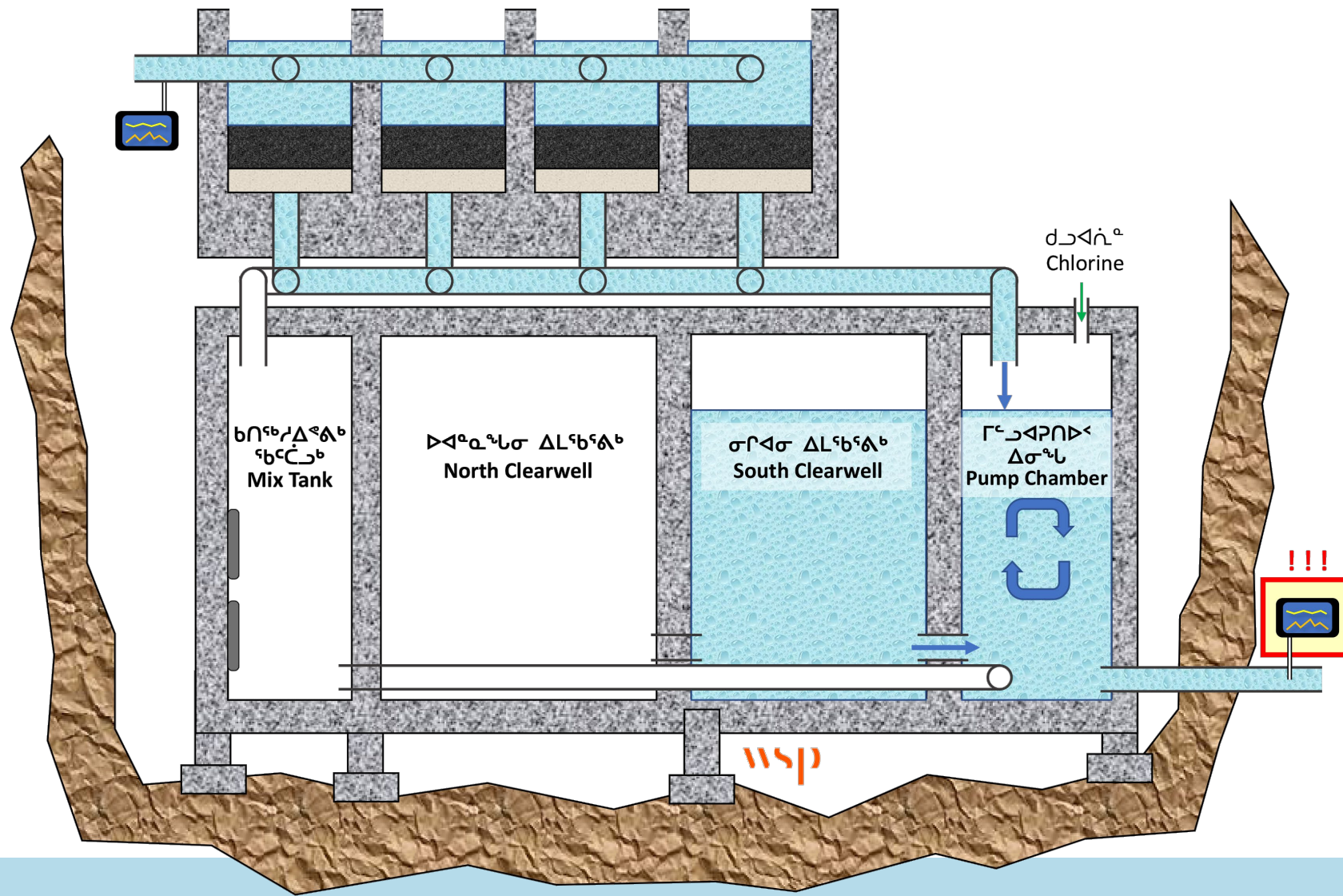
ԽՈՒՐԴԱՑՆԵՐԸ ԿՐԿՅՆԻՐՈՒ MIXING TANK BYPASS

ԿՐԿՅՆԻՐՈՒ

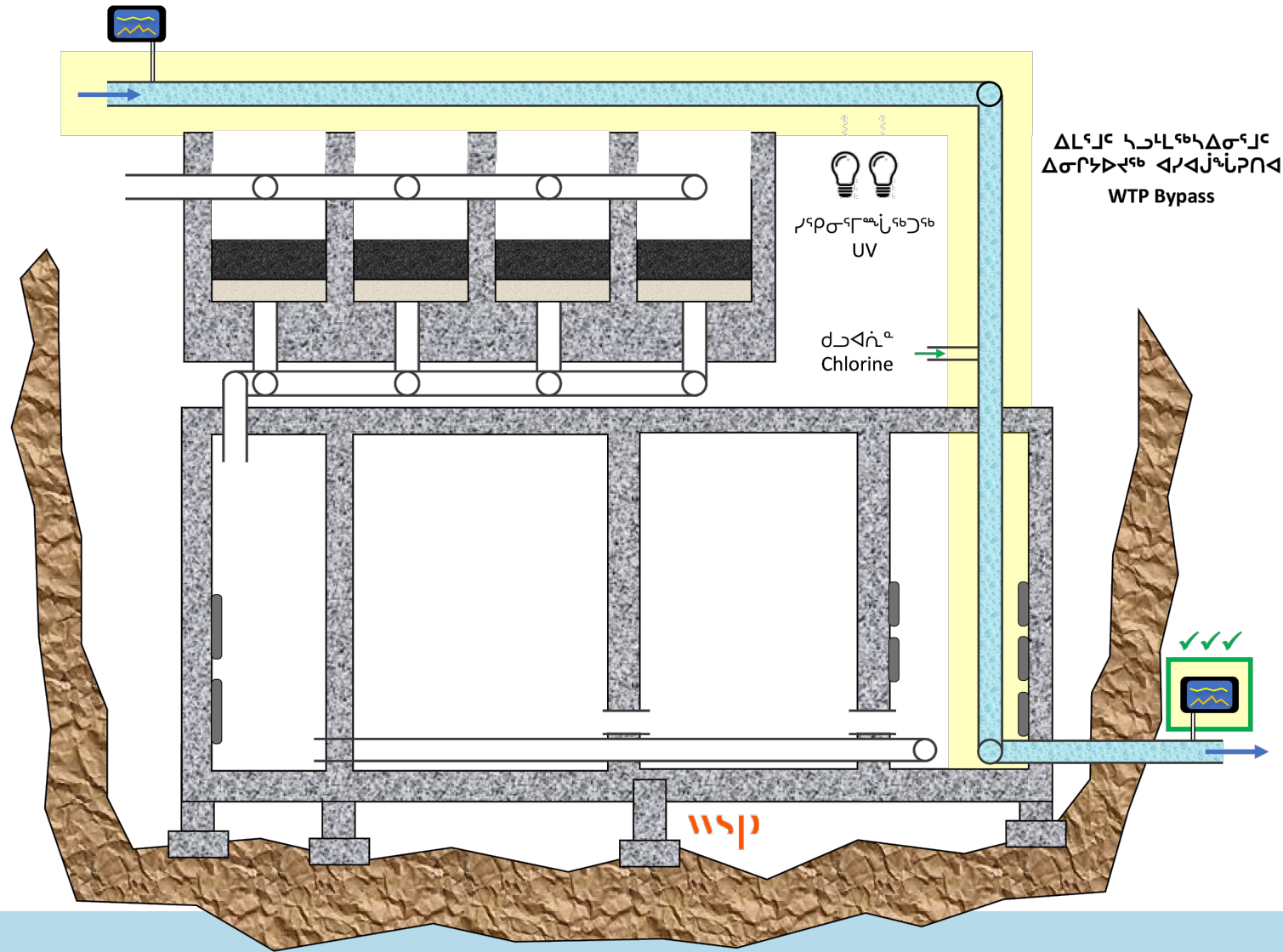


ᐱᓄᐱᓐ ᐱᓄᐱᓐ JANUARY DETECTION

WSP



ΔΕΥΧΗ ΔΙΑΧΕΙΡΙΣΗΣ ΕΠΙΧΕΙΡΗΣΕΩΝ
WATER TREATMENT PLANT BYPASS SYSTEM



A photograph showing a worker in a hard hat and safety vest standing in a large, dimly lit tunnel, inspecting the wall. Large pipes run along the ceiling and floor. A surveying instrument is visible on the left.



TAR-LIKE SUBSTANCE



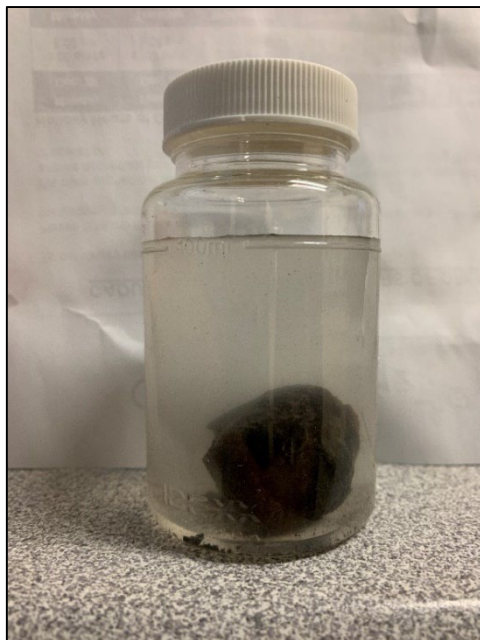
ᐱᕈᓂᑦ ᑕᐃᐤᐃᑦᓴᓂᑦ

36 Δ6⁹5^c

60 Δ6⁹5^c

84 Δ6⁹5^c

ბიჭი



Original Size



36 Hours



60 Hours

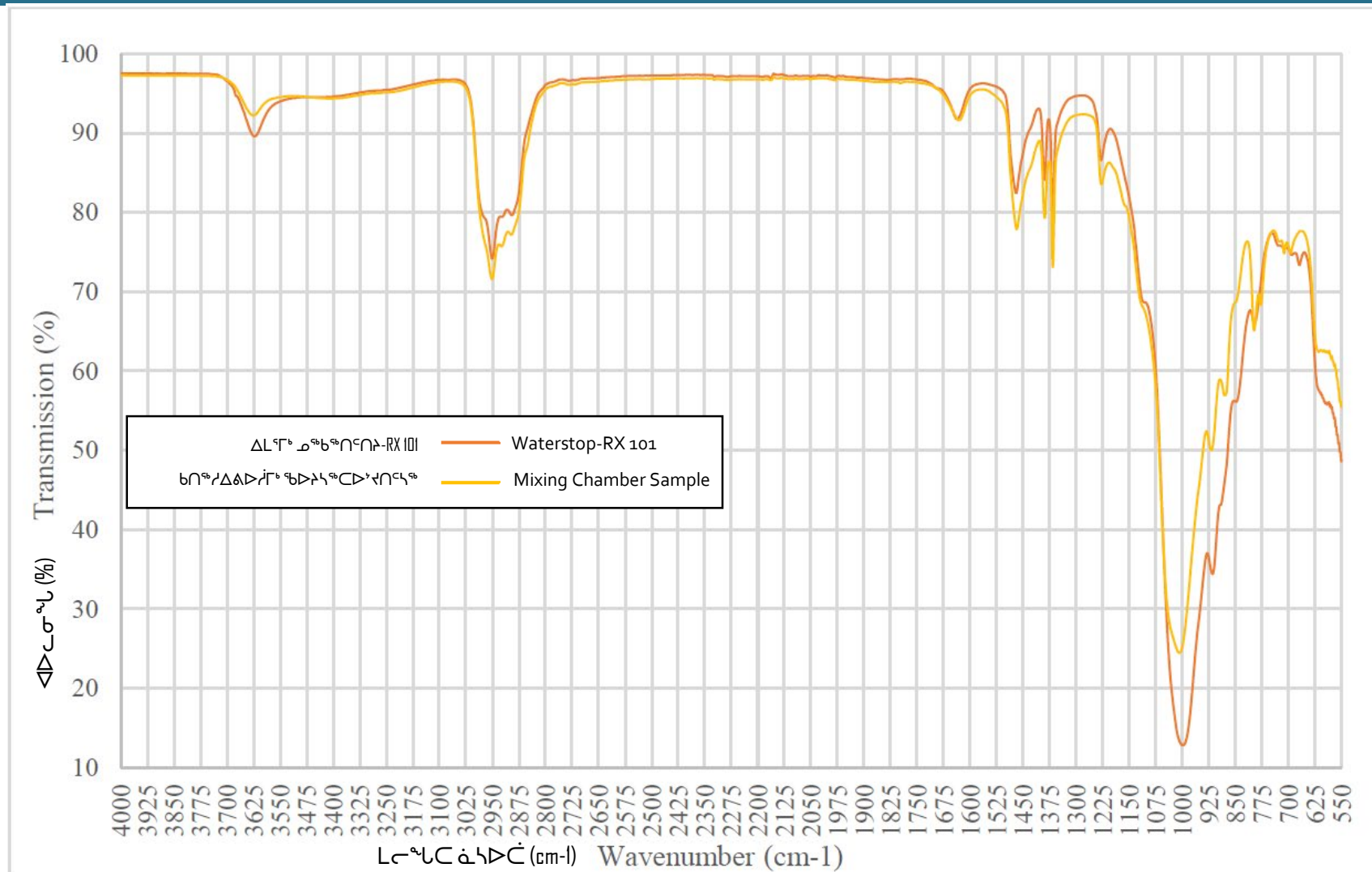


84 Hours



Mixing





ᐱᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ TWO CONTAMINATION EVENTS

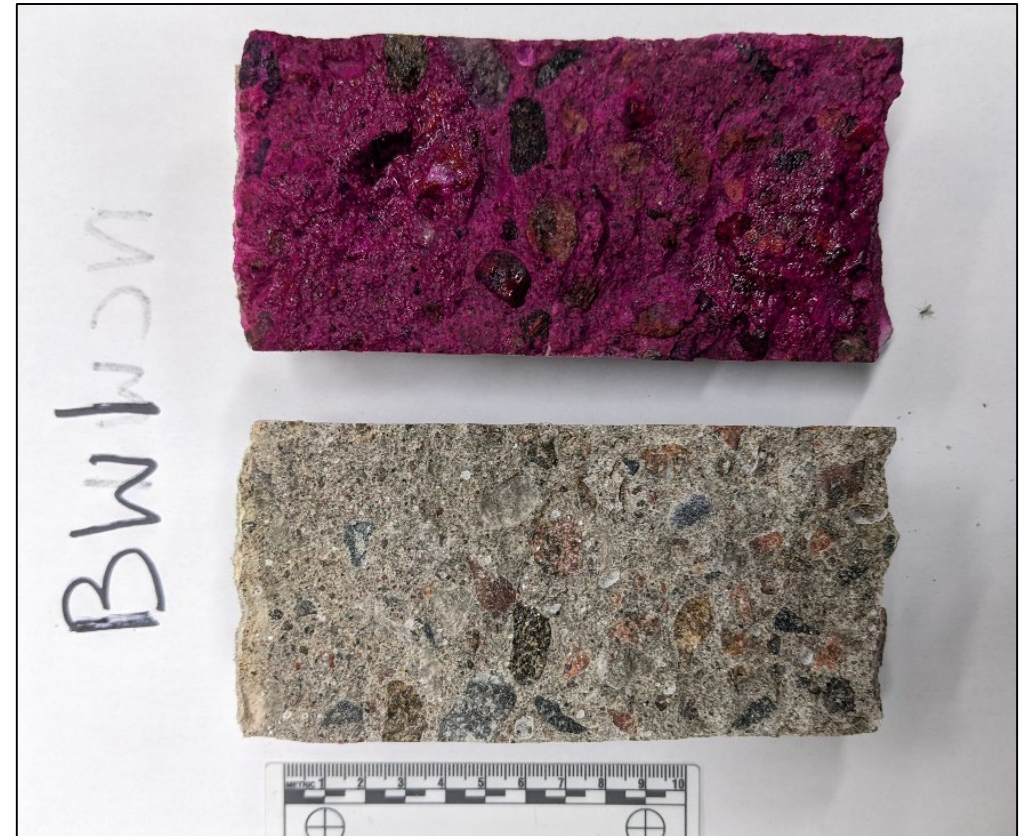


	ᐅᑦᑕᐱᑦ OCTOBER	ᑎᑦᐱᑦ DECEMBER
ᐱᑭᑭᑕᐅᑦᑭᑦ Fractions	F1 ᐱᑭᑭ F2 F1 and F2	F3 ᐱᑭᑭ F4 F3 and F4
ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ Material Behaviour	ᑭᑭᑭᑭᑭ ᐱᑭᑭᑕᐅᑦᑭᑦ Floats in water	ᑭᑭᑭᑭᑭ ᐱᑭᑭᑕᐅᑦᑭᑦ Sinks in water
ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ Fingerprinting	ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ UST Strong match with Historic UST	ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ ᐱᑭᑭᑕᐅᑦᑭᑦ Strong match with waterstop

ᑭᐃᑦᑕᑦᑕᑦ/ᐃᑦᑕᑦᑕᑦ ᑭᐃᑦᑕᑦᑕᑦ CONCRETE / STRUCTURAL ASSESSMENT



ᑭᐃᑦᑕᑦᑕᑦ ᑭᐃᑦᑕᑦᑕᑦ ᑭᐃᑦᑕᑦᑕᑦ



No detectable hydrocarbons in concrete





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ᐃᑦᓴᓴᐃᑦ?
QUESTIONS?

