

# Overview of Ouje Bougamou District Heating System

Sebnem Madrali

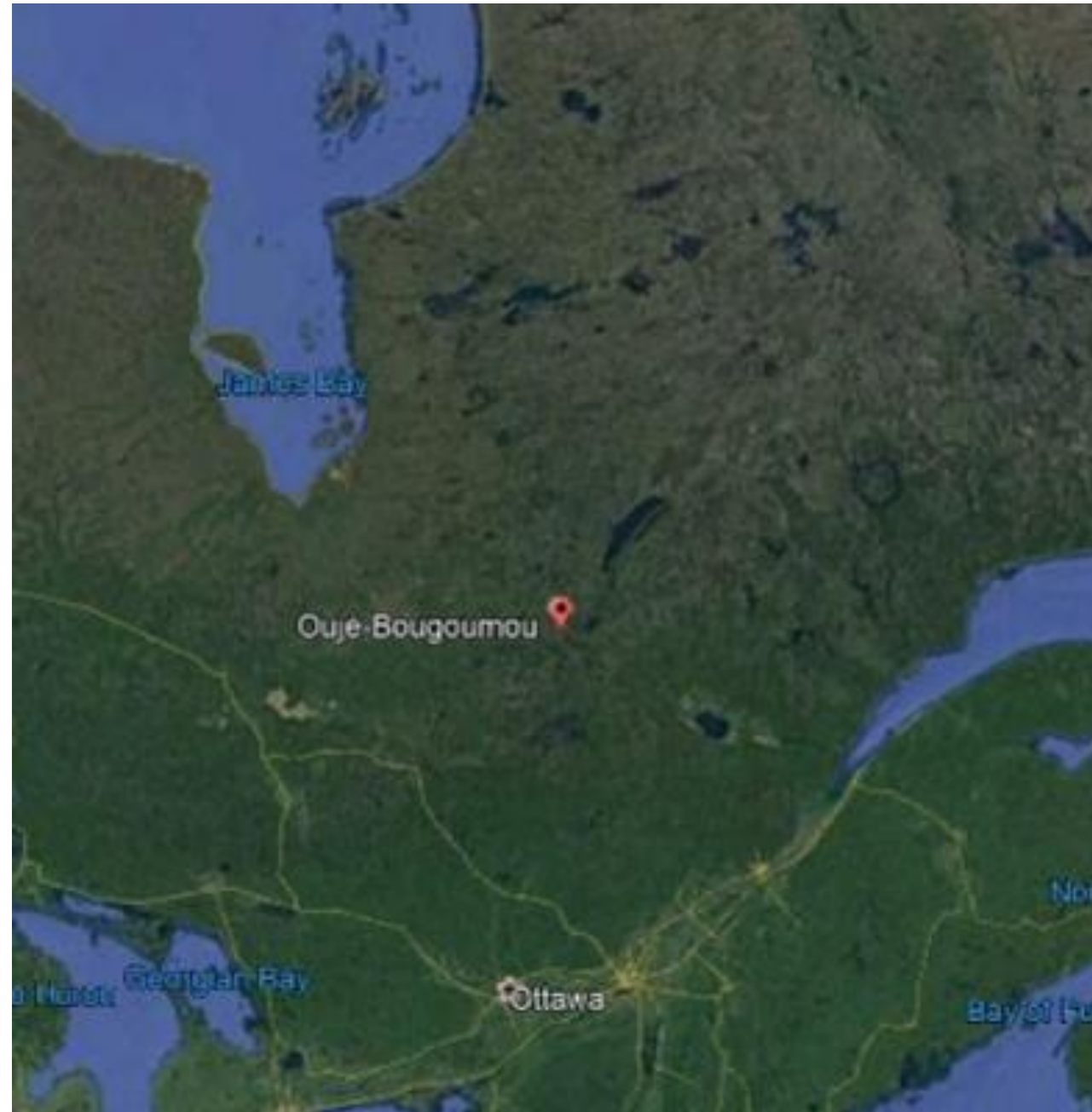
Alaska/Yukon Wood Energy Conference

April 16<sup>th</sup>, 2019



# Ouje Bougoumou

- Cree Nation in Northern Quebec
- First Biomass DE in Indigenous Community
- Started in 1991 as Gound-up Permanent Village (\$46M)
- Started as flat fee for residences



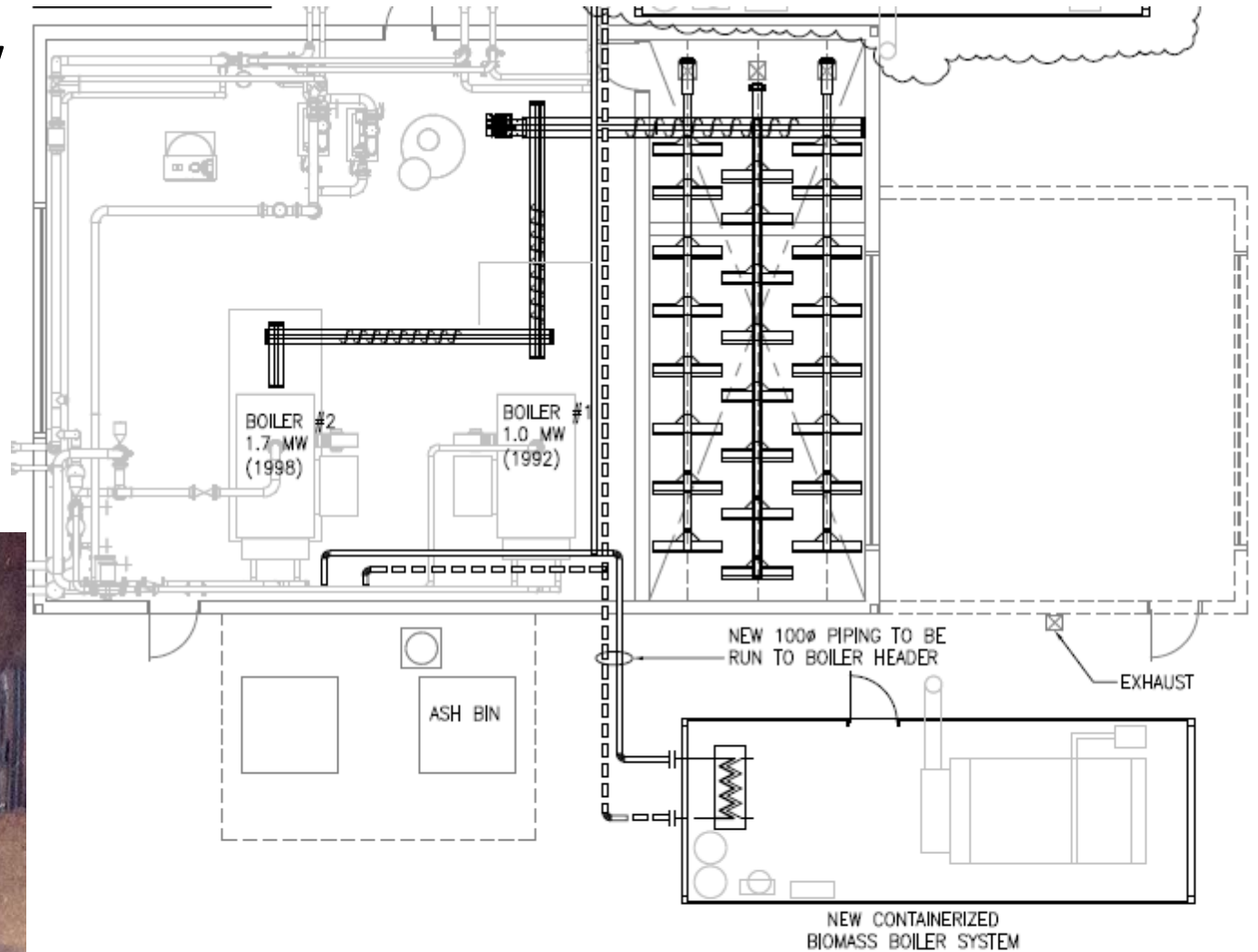
# System Overview

- Boiler 1 - 1 MW Thermal and 3.4MMBTU/hr
- Boiler 2- 1.7 MW Thermal 5.8 MMBTU/hr
- 160 customers
- 1.8 Miles – 2.8 KM
- Hot water
- Primary fuel is sawmilling residuals- Sawdust
- No NG
- Indigenous owned and operated
- 140 homes and 20 are public buildings
- 2.3 km PEX – 0.6 km Steel



# System Overview

- Walking Floor fuel storage
- Analog Control System
- Oil Back up in Separate building
- Cyclone on Flue Gas



2 1992 PLANT PLAN  
DATE 11/00

0 0.5 2 4 10

SCALE 1:100

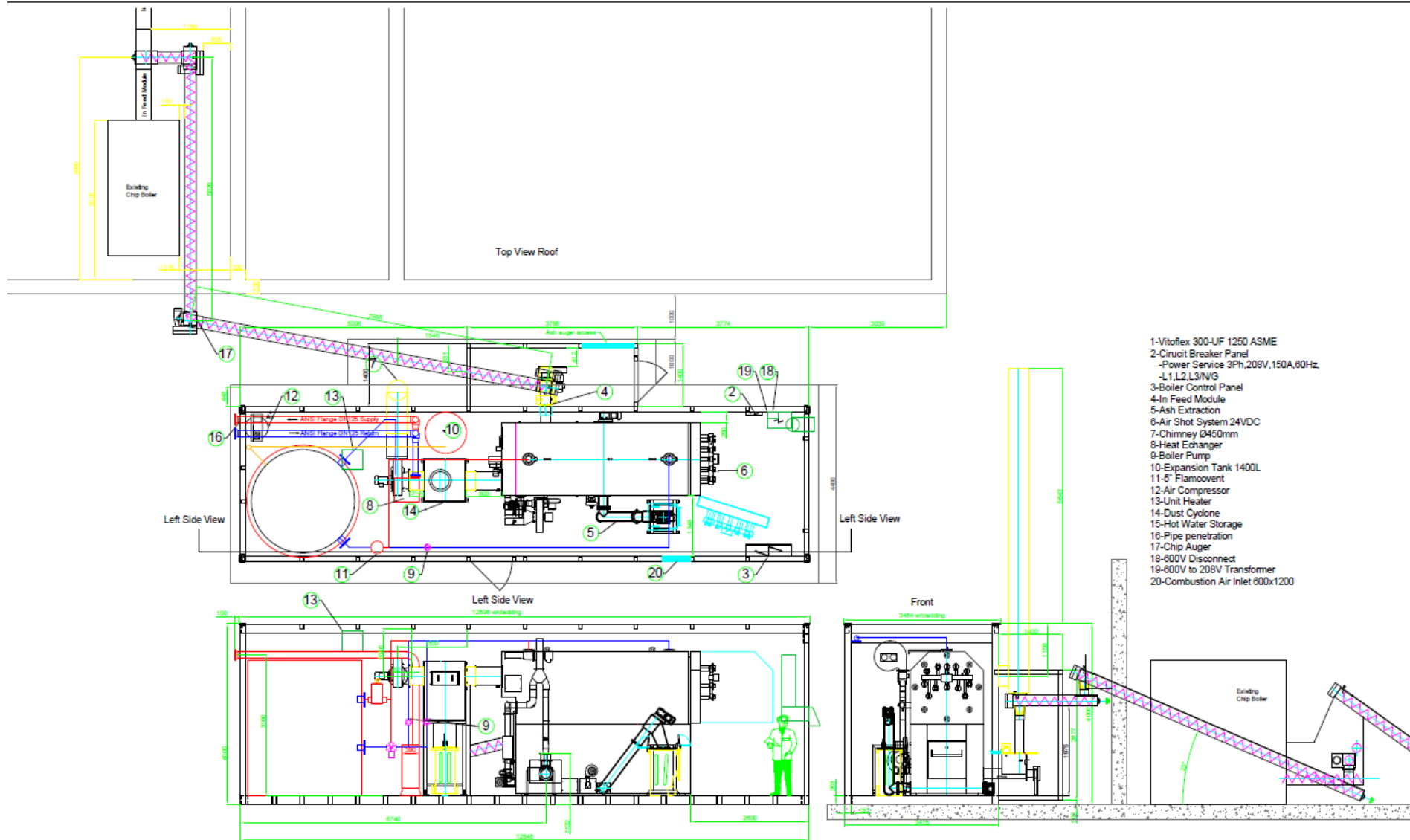




# Boiler Upgrades

- New Containerized 1250kW Viessmann Vitoflex 300-UF
- Standalone boiler control.
- 11.5' wide x 13' high x 45 ' long – 75,000 lbs
- Flue Gas Cyclone
- Auto Ash removal
- Air Tube Cleaners





- 1-Vitoflex 300-UF 1250 ASME
- 2-Circuit Breaker Panel
- Power Service 3Ph,208V,150A,60Hz.
- 1,1,L2,L3/N/G
- 3-Boiler Control Panel
- 4-In Feed Module
- 5-Ash Extraction
- 6-Air Shot System 24VDC
- 7-Chimney Ø450mm
- 8-Heat Exchanger
- 9-Boiler Pump
- 10-Expansion Tank 1400L
- 11-5' Flamcovent
- 12-Air Compressor
- 13-Unit Heater
- 14-Dust Cyclone
- 15-Hot Water Storage
- 16-Pipe penetration
- 17-Chip Auger
- 18-600V Disconnect
- 19-600V to 208V Transformer
- 20-Combustion Air Inlet 600x1200

<b>Fink Machine Inc.</b> <small>www.finkmachine.com</small>	Ouje Heating Plant			
	DATE	April 8/2019	--	
	Drawing by:	Nathanassi Dapk ndapk@finkmachine.com	MODEL:	Vitoflex 300-UF 1250
SCALE	NTS	UNITS	mm	JOB # B114    REV D